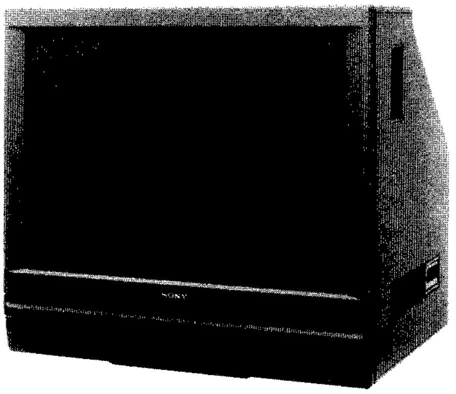
RVP-4015Q/4015QM

RM-PJ4010

SERVICE MANUAL

US Model
Canadian Model
RVP-4015Q
Chassis No. SCC-K13A-A
AEP Model
RVP-4015QM
Chassis No. SCC-K12A-A



Desktop Data

MODELS OF THE SAME SERIES	
RVP-4015Q/4015QM	VPH-1271QM
RVP-4010Q/4010QM	VPH-1272Q/QM
VPH-1271Q	VPH-1252Q/QM

SPECIFICATIONS

Optical system

Projection system 3 picture tubes, 3 lenses, horizontal inline system, rear projection type

Picture tubes 7-inch (5.5-inch phosphor size) high brightness monochromatic CRT with sealed coolant

Lenses HACC (high-resolution aspherical and color corrected) lenses
f/1.0, 96 mm

Projected picture size
40 inches (101 cm) on diagonal

Luminance 100 ft-L (white peak)
25 ft-L (all white)

Electrical system

Color systems NTSC, PAL, SECAM, and NTSC$_{4.43}$, switched automatically

Resolution 800 × 800 pixels (RGB input at 50 kHz horizontal scan, 60 Hz vertical scan), 700 TV lines (VIDEO input)

RGB inputs Horizontal frequency: 15 kHz to 85 kHz
Vertical frequency: 38 Hz to 150 Hz

Test signal Built-in cross hair pattern generator

Speakers Total output 5 W + 5 W

Inputs **Video inputs**
VIDEO IN
Y/C: 4-pin mini-DIN connector
  Y signal input:
    1 Vp-p ± 2 dB, sync negative, terminated in 75 Ω
  C signal input:
    Burst, 0.286 Vp-p ± 2 dB, terminated in 75 Ω (NTSC)
    Burst, 0.3 Vp-p ± 2 dB, terminated in 75 Ω (PAL)

— continued on next page —

MULTISCAN REAR PROJECTOR

SONY®

VIDEO: BNC connector
Composite video input, 1 Vp-p ± 2 dB, sync negative, terminated in 75 Ω
AUDIO IN: phono jack
408 mVrms, minimum impedance of 47 kΩ

RGB inputs

R: BNC connector
Red input, 0.7 Vp-p ± 2 dB, terminated in 75 Ω, positive polarity
G/G SYNC: BNC connector
Green input, 0.7 Vp-p ± 2 dB, terminated in 75 Ω, positive polarity
Green/sync input, 1 Vp-p ± 2 dB, terminated in 75 Ω, positive polarity
B: BNC connector
Blue input, 0.7 Vp-p ± 2 dB, terminated in 75 Ω, positive polarity
SYNC/HD: BNC connector
Composite sync input, 0.3 to 4 Vp-p, terminated in 75 Ω, positive and negative polarities
Horizontal sync input, 0.3 to 4 Vp-p, terminated in 75 Ω, positive and negative polarities
VD: BNC connector
Vertical sync input, 0.3 to 4 Vp-p, terminated in 75 Ω, positive and negative polarities
AUDIO IN: Phono jacks

Control signal inputs

REMOTE 1: 14-pin connector *(see "Pin assignments" on page 34)*
REMOTE 2: 9-pin connector *(see "Pin assignments" on page 34)*
REMOTE 3 IN: Mini-jack
CONTROL S IN: Mini-jack, 5 Vp-p

Outputs

VIDEO OUT, MONITOR OUT VIDEO: BNC connectors
Composite video output, 1 Vp-p ± 3 dB, 75 Ω impedance
VIDEO OUT outputs signals input to VIDEO IN
MONITOR OUT Y/C: mini-DIN 4-pin connector
Y (luminance) signal output: 1 Vp-p ± 3 dB, 75 Ω impedance
C (chrominance) signal output: 0.286 Vp-p ± 3 dB, 75 Ω impedance (NTSC)
0.3 Vp-p ± 3 dB, 75 Ω impedance (PAL)
MONITOR OUT R: BNC connector
Red output, 0.7 Vp-p ± 3 dB, 75 Ω impedance
MONITOR OUT G: BNC connector
Green output, 0.7 Vp-p ± 3 dB, 75 Ω impedance
Green/sync output, 1 Vp-p ± 3 dB, 75 Ω impedance
MONITOR OUT B: BNC connector
Blue output, 0.7 Vp-p ± 3 dB, 75 Ω impedance
MONITOR OUT SYNC/HD: BNC connector
Composite/horizontal sync output, 1 Vp-p ± 3 dB, 75 Ω impedance
MONITOR OUT VD: BNC connector
Vertical sync output, 1 Vp-p ± 3 dB, 75 Ω impedance
MONITOR OUT AUDIO: Phono jacks, variable/fixed
CONTROL S OUT: Mini-jack, 5 Vp-p
REMOTE 3 OUT: Mini-jack

General

Power requirements
RVP-4015Q: 120 V AC, 50/60 Hz
RVP-4015QM: 220 to 240 V AC, 50/60 Hz

Power consumption
590 W maximum

Temperature to guarantee specified performance
0°C to 40°C (35 to 80% humidity)

Storage temperature
–20°C to 60°C (10 to 80% humidity)

Dimensions 931 × 874 × 752 mm (w/h/d)
(36 3/4 × 34 1/2 × 29 5/8 inches)

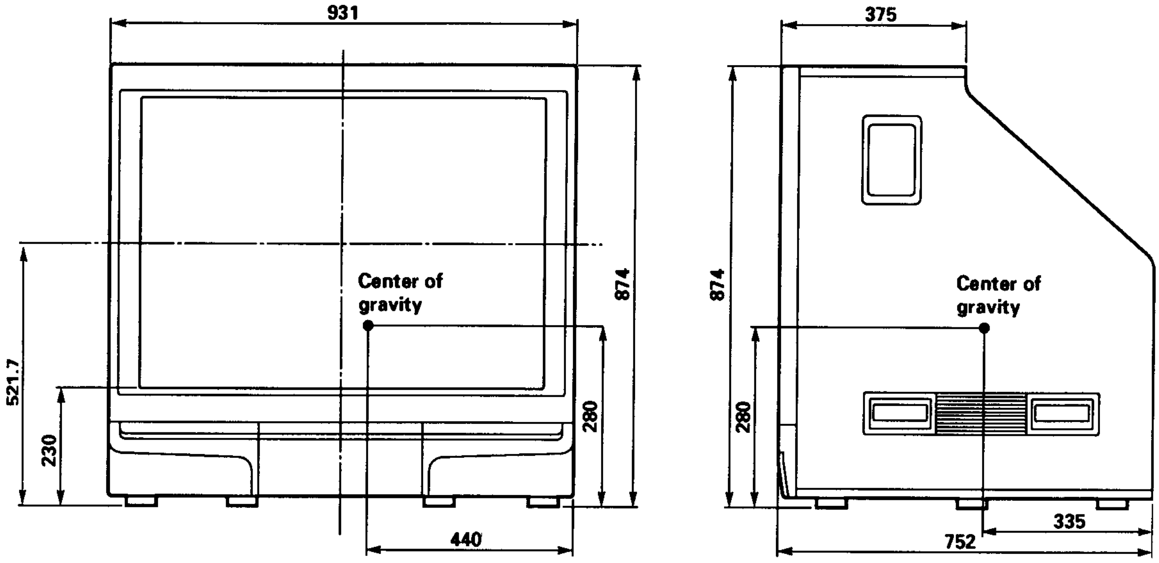
Mass Approximately 96 kg (211 lb)

Accessories supplied
RM-PJ4010 Remote Commander (1)
R6 (AA) batteries (3)
Remote control cable, two-core stereo, 15 m (about 49 feet) (2)
AC power cord (1)
Operating Instructions (1)
Installation Manual for Dealers (1)

Design and specifications are subject to change without notice.

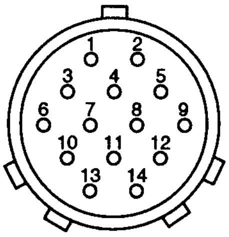
Dimensions

Note: All dimensions are in millimeters.


931
874
Center of gravity
521.7
230
280
440
375
874
Center of gravity
280
335
752

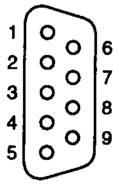
Pin assignments

REMOTE 1 connector (14-pin)


1
2
3
4
5
6
7
8
9
10
11
12
13
14

Pin	Signal
1	Ground
2	HD/Composite sync
3	SIRCS
4	No connection
5	Ground (SIRCS)
6	Blue/Color
7	Ground (Blue/Chrominance)
8	Ground (Green/Luminance)
9	Green/Luminance
10	RGB/Video control
11	Red/Composite video
12	Composite video/YC control
13	Audio
14	Vertical sync

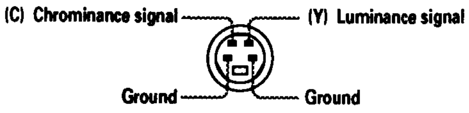
REMOTE 2 connector (9-pin)



Pin	Signal
1	Frame ground
2	$\overline{\text{Transmit A}}$
3	Receive B
4	Receive common
5	Spare
6	Transmit
7	Transmit B
8	$\overline{\text{Receive A}}$
9	Frame ground

Signal levels comply with EIA RS-422.

Y/C video input connector (4-pin mini-DIN)


(C) Chrominance signal
(Y) Luminance signal
Ground
Ground

Accessories (not supplied)

Signal interface switcher	PC-1271/1271M
Interface cable	CCQ BRS
Interface boards	IFB-11 (5 BNC, analog RGB inputs) IFB-20 (D-SUB 9-pin, analog RGB input) IFB-30 (D-SUB 9-pin, digital RGB input) IFB-1000 (BNC, video input; DIN 4-pin, S-video input) IFB-1200 (3 BNC, component inputs) IFB-101 (index board) IFB-3000 (3 BNC, component inputs; BNC, video input; DIN 4-pin, S-video input)
Interface unit	IFU-1271/1271M

WARNING!!

AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE TO AVOID POSSIBLE SHOCK HAZARD, BECAUSE OF LIVE CHASSIS.
THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE AC POWER LINE.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND MARK ⚠ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY. CIRCUIT ADJUSTMENTS THAT ARE CRITICAL TO SAFE OPERATION ARE IDENTIFIED IN THIS MANUAL. FOLLOW THESE PROCEDURES WHENEVER CRITICAL COMPONENTS ARE REPLACED OR IMPROPER OPERATION IS SUSPECTED.

ATTENTION!!

AFIN D'EVITER TOUT RISQUE D'ELECTROCUTION PROVENANT D'UN CHÁSSIS SOUS TENSION, UN TRANSFORMATEUR D'ISOLEMENT DOIT ETRE UTILISÉ LORS DE TOUT DÉPANNAGE.
LE CHÁSSIS DE CE RÉCEPTEUR EST DIRECTEMENT RACCORDÉ À L'ALIMENTATION SECTEUR.

ATTENTION AUX COMPOSANTS RELATIFS À LA SÉCURITÉ!!

LES COMPOSANTS IDENTIFIÈS PAR UNE TRAME ET PAR UNE MARQUE ⚠ SUR LES SCHÉMAS DE PRINCIPE, LES VUES EXPLOSÉES ET LES LISTES DE PIECES SONT D'UNE IMPORTANCE CRITIQUE POUR LA SÉCURITÉ DU FONCTIONNEMENT. NE LES REMPLACER QUE PAR DES COMPOSANTS SONY DONT LE NUMÉRO DE PIÉCE EST INDIQUÉ DANS LE PRÉSENT MANUEL OU DANS DES SUPPLÉMENTS PUBLIÉS PAR SONY. LES RÉGLAGES DE CIRCUIT DONT L'IMPORTANCE EST CRITIQUE POUR LA SÉCURITÉ DU FONCTIONNEMENT SONT IDENTIFIES DANS LE PRÉSENT MANUEL. SUIVRE CES PROCÉDURES LORS DE CHAQUE REMPLACEMENT DE COMPOSANTS CRITIQUES, OU LORSQU'UN MAUVAIS FONCTIONNEMENT EST SUSPECTÉ.

SAFETY CHECK-OUT
(US Model only)

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

1. Check the area of your repair for unsoldered or poorly-soldered connections. Check the entire board surface for solder splashes and bridges.
2. Check the interboard wiring to ensure that no wires are "pinched" or contact high-wattage resistors.
3. Check that all control knobs, shields, covers, ground straps, and mounting hardware have been replaced. Be absolutely certain that you have replaced all the insulators.
4. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.
5. Look for parts which, though functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.
6. Check the line cords for cracks and abrasion. Recommend the replacement of any such line cord to the customer.
7. Check the B+ and HV to see if they are at the values specified. Make sure your instruments are accurate; be suspicious of your HV meter if sets always have low HV.
8. Check the metal trim, metallized knobs, screws, and all other exposed metal parts for AC leakage.
   Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5mA (500 microampers). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufactures' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2V AC range are suitable. (See Fig. A)

HOW TO FIND A GOOD EARTH GROUND

A cold-water pipe is guaranteed earth ground; the cover-plate retaining screw on most AC outlet boxes is also at earth ground. If the retaining screw is to be used as your earth-ground, verify that it is at ground by measuring the resistance between it and a cold-water pipe with an ohmmeter. The reading should be zero ohms. If a cold-water pipe is not accessible, connect a 60-100 watts trouble light (not a neon lamp) between the hot side of the receptacle and the retaining screw. Try both slots, if necessary, to locate the hot side of the line, the lamp should light at normal brilliance if the screw is at ground potential. (See Fig. B)

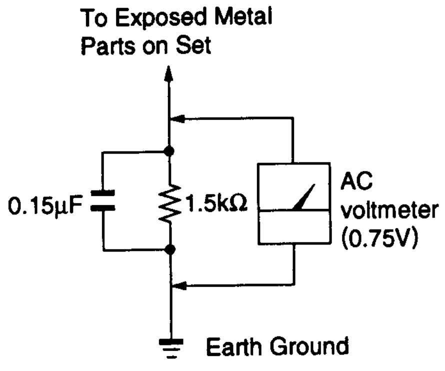


Fig. A. Using an AC voltmeter to check AC leakage.

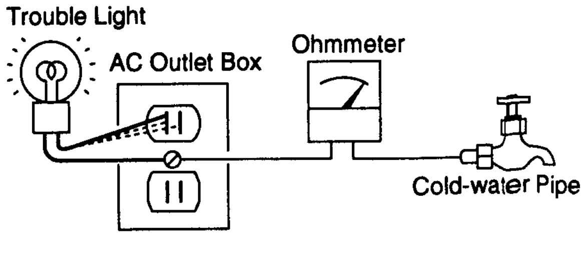


Fig. B. Checking for earth ground.

TABLE OF CONTENTS

Section *Title* *Page*

1. GENERAL

1-1. OPERATING INSTRUCTION

Features 7
Location and Function of Controls 8
Projector Operation 12
Registration Adjustment 17
System Enhancements 18
In the Event of Operating Problems 19

1-2. INSTALLATION

Dimensions 19
System Expansion 20
Remote Control Operation 20
Adjustment Sequence 22
Test Patterns 23
Lens Focusing 24
Registration Adjustment 25
White Balance Adjustment 29
Miscellaneous Adjustments 30
Saving Adjustment Data 30
Data Reset 31
Changing the warming Up time 32
Disabling the Servicing Buttons 33
Status Display Pages 33
Messages 34

2. DISASSEMBLY

2-1. IFB-11, IFB-1000, KA and KB Boards Removal . 36
2-2. AA, AB and AC Boards Removal 36
2-3. Back Cover Removal 37
2-4. E and DC Boards Removal 37
2-5. PA Board Removal 38
2-6. B and Y Boards Removal and Extension Board Connection 38
2-7. G and K Boards Removal 39
2-8. Switching Regulator (SOPS-1074) Removal 39
2-9. Mirror Cover Assy Removal 40
2-10. Screen Assy Removal 40
2-11. Shield (U) Removal 41
2-12. PB Assy Removal 41
2-13. DA, DB, DE and CAC Boards Removal and Extension Board Connection 42
2-14. CAR, CAG and CAB Boards Removal and Extension Board Connection 42
2-15. Picture Tube Removal 43
2-16. High-voltage Cabel Removal 44

3. TROUBLE SHOOTING

3-1. Self-diagnostics (Troube shooting) 45
3-2. DE Board (Operation) 52

4. SET-UP ADJUSTMENT

4-1. Neck Assenbly Installation 52
4-2. Adjustment I 56
4-3. Registration Adjustment 58
4-4. White Balance Adjustment 60
4-5. R, G, B Blanking Adjustment 62

Section *Title* *Page*

5. SAFETY RELATED ADJUSTMENT 63

6. CIRCUIT ADJUSTMENT

6-1. B Board Adjustment 67
6-2. E Board Adjustment 69
6-3. DA Board Adjustment 69
6-4. DE Board Adjustment 70

7. DIAGRAMS

7-1. Circuit Boards Location 72
7-2. Block Diagrams 73
7-3. Frame Schematic Diagram 87
7-4. Schematic Diagrams and Printed Wiring Boards .. 90
  B Board 91
  Y Board 103
  BM Board 110
  E Board 116
  DA Board 123
  DB Board 131
  DC Board 139
  AM Board 146
  DM Board 152
  AA and AB Boards 157
  AC, KA adn KB Boards 163
  DE Board 171
  PA, PB and PC Boards 179
  NA, NB, K and G Boards 187
  CM Board 195
  CAC Board 201
  CAR Board 205
  CAG Board 210
  CAB Board 215
  CBR, CBG and CBB Boards 220
7-5. Semiconductors 225

8. EXPLODED VIEWS

8-1. Screen and Control Block 228
8-2. Mirror Cover and Power Block 229
8-3. DC and E Block 230
8-4. Shield and Mirror Holder Block 231
8-5. Picture Tube 232
8-6. Chassis Block 233
8-7. Cabinet Block 234

9. ELECTRICAL PARTS LIST 235

SECTION 1
GENERAL

The operating instructions mentioned here are partical abstracts from the Operating Instruction Manual and Installation Manual. The page numbers of the Operating Instruction Manual and Installation Manual remain as in the manual.

1-1. OPERATING INSTRUCTION

Features

Multiscan projector

The projector accepts and detects automatically horizontal scanning frequencies between 15 kHz and 85 kHz and vertical scanning frequencies between 38 Hz and 150 Hz. In addition to high-resolution computer images and teletext, the output from a VCR or video camera can also be projected.

Bright image — luminance 100 ft-L

A newly-developed phosphor, 7-inch CRT, and improved high voltage circuitry provides super brightness.

Non-glare coated screen

A non-glare coated protective screen protects the main screen and reduces reflection from fluorescent and other light sources, and enhances the picture contrast.

High picture resolution — 800 × 800

The Sony HACC (High-resolution Aspherical and Color Corrected) lens contributes to picture sharpness and improved contrast. A high-quality picture, with an 800 by 800 resolution is obtained by a system whose design features include an electron gun designed for high picture sharpness, a liquid-cooled tube for even better color reproduction, and an anti-reflection coating to improve corner focus and contrast.

Remote commander

All adjustments can be controlled with the supplied Remote Commander. This can be used either as a wireless remote control, or connected with the supplied cable.

On-screen status display

Picture and sound adjustments, and various indications and error messages can be displayed on the screen. It is also possible to display the current settings and input signal type on the screen.

Wide viewing area

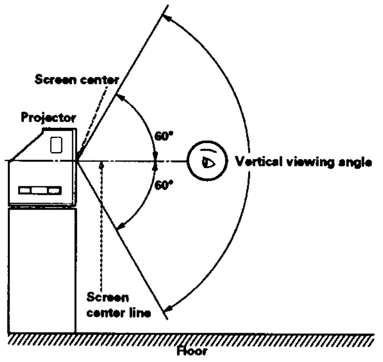
A wide viewing area assures ease of viewing even when you are making a desk top presentation right beside the screen.

Other functions

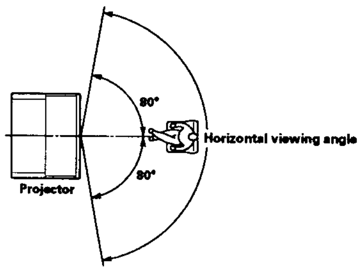
- **Four color systems supported**
  The unit supports NTSC, PAL, SECAM, and NTSC4.43 color systems, and detects the input signal type automatically.
- **Illuminated control panels**
  Both the control panel on the main unit and that on the Remote Commander have a LIGHT button which switches the control panel illumination on and off, for ease of use in dark situations.
- **Built-in test pattern**
  For centering operations without an external signal connected, the unit supplies its own test pattern signal.

Viewing Angle

Vertical viewing angle

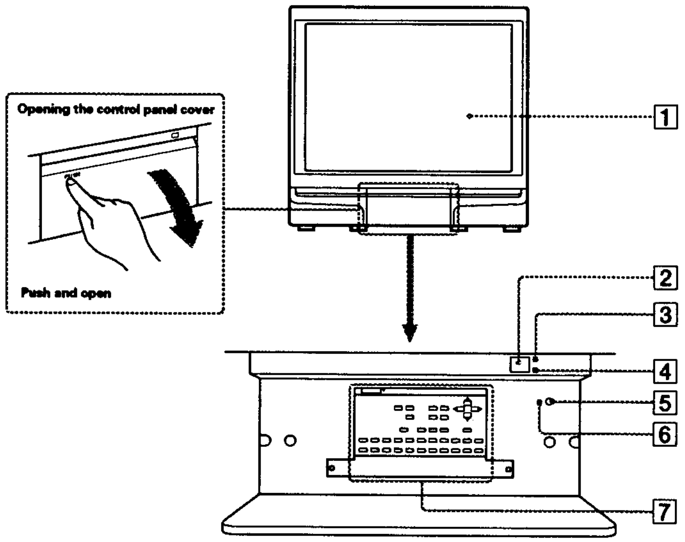


Horizontal viewing angle



Location and Function of Controls

Front



1 **Screen**

2 **Remote control sensor**

3 **POWER indicator**

Lights green when the projector is turned on.

4 **STANDBY indicator**

Lights red when the MAIN POWER switch on the rear is on. When this indicator is lit, you can turn the projector on or off with the Remote Commander.

Note

When the MAIN POWER switch is turned off, there will be a slight delay before the STANDBY indicator goes off. This does not indicate malfunction of the projector.

5 **CONTROL S IN connector for maintenance purposes**

Do not connect anything.

Note

If the remote control cable is connected to this connector, it is not possible to control the projector from the control panel on the unit, by wireless Remote Commander, by a Remote Commander connected to the CONTROL S IN connector on the rear, or by an external switcher.

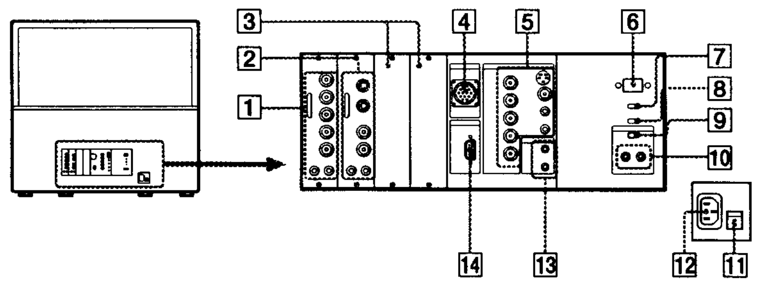
6 **WIRELESS ON/OFF switch**

Turn this switch off when you do not wish the wireless Remote Commander to control the projector, or when the wired Remote Commander connected to the CONTROL S IN connector on the rear does not work properly due to the interference from the noise generated by fluorescent lamps or other sources.

7 **Control panel**

The buttons inside the panel cover are the same as those on the Remote Commander. For details about using these buttons, see the section "Remote Commander RM-PJ4010" *(page 10)*.

Rear



1 INPUT A connector panel

R, G/G SYNC, B, SYNC/HD, VD connectors (BNC type)
Connect to the video output connectors of a computer or other equipment.

AUDIO IN connectors (phono)
Connect to the audio output connectors of a VCR or other equipment.

2 INPUT B connector panel

Y/C IN connector (mini-DIN 4-pin)
Connect to the S-video output connector of a VCR or other video equipment.

VIDEO IN connector (BNC type)
Connect to the video output connector of a VCR or other video equipment.

Note

When cables are connected to both the Y/C IN and VIDEO IN connectors, the signals input to the Y/C IN connector take precedence. If you wish to view the picture from the equipment connected to the VIDEO IN connector, do not connect anything to the Y/C IN connector.

Y/C OUT connector (mini-DIN 4-pin)
Connect to the S-video input connector of a color monitor, VCR or other video equipment. The signals input to the Y/C IN connector are output from this connector.

VIDEO OUT connector (BNC type)
Connect to the video input connector of a color monitor, VCR or other video equipment. The signals input to the VIDEO IN connector are output from this connector.

AUDIO IN connectors (phono)
Connect to the audio output connectors of a VCR or other equipment.

3 Interface board slots
When expanding inputs to the projector, install the optional IFB-11/20/30/1000/1200/101 interface boards in these slots. Slots are identified as INPUT C and INPUT D from the left. Note that the IFB-101 interface board can only be installed in the INPUT D slot.

4 REMOTE 1 connector (14-pin)
Connect to the optional PC-1271/1271M switcher.

5 MONITOR OUT connector panel
Connectors on this panel output the signals selected with the INPUT SELECT buttons on the control panel or Remote Commander.

R, G, B, SYNC/HD, and VD connectors (BNC type), Y/C connector (mini-DIN 4-pin), VIDEO connector (BNC type), AUDIO connectors (phono)
Connect to a monitor or projector.

6 Error code indicator
If a fault is determined in the unit, this displays an error code indicating the type of error. If a failure occurs, write down the error code indicated here before contacting your Sony service representative.

7 SPEAKER switch
Turn this on when using the built-in speakers. Turn it off when not using them.

8 AUDIO VAR/FIX switch
Set to VAR to control the output volume from the AUDIO connectors on the MONITOR OUT connector panel using the VOL +/– buttons on the Remote Commander. When this switch is in the FIX position, the volume is fixed.

9 REMOTE 3 switch
Normally this switch should be in the OFF position. Use this switch when connecting multiple RVP-4015Q/QM units together for simultaneous use.
For details, see page 27.

10 REMOTE 3 IN/OUT connectors (phono)
Use these connectors when connecting multiple RVP-4015Q/QM units together for simultaneous use.
For details, see page 27.

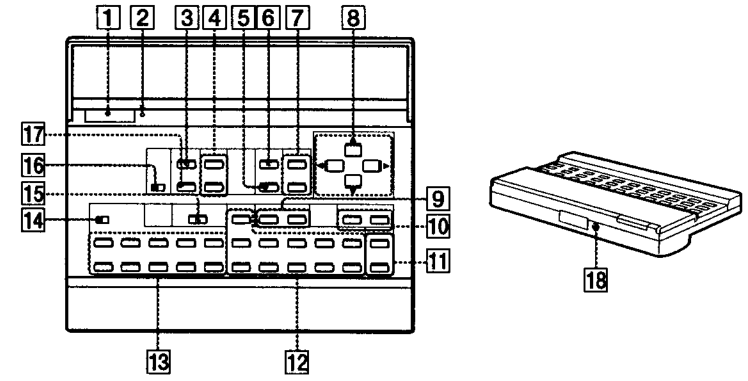
11 MAIN POWER switch (▬ ON/ ■ OFF)

12 AC IN socket
Connect the supplied AC power cord (mains lead).

13 CONTROL S IN/OUT connectors (phono)
Connect the CONTROL S IN connector to the CONTROL S OUT connector of the supplied Remote Commander when using the commander as a wired Remote Commander. Connect the CONTROL S OUT connector to the CONTROL S IN connector of other Sony equipment.

14 REMOTE 2 connector (9-pin)
Connect RS-422 interface for communication with a computer.

Remote Commander RM-PJ4010



1 **LIGHT button**
Press to illuminate the button indications. The illumination automatically goes off if you do not touch any button for about 30 seconds.

2 **Transmission indicator**
Lights when you press any of the buttons on the Remote Commander. If it does not light, replace the batteries.

3 **MEMORY button**
Press to save the settings.

4 **STATUS ON/OFF buttons**
Press the OFF button to turn off the on-screen status display. Note that the PAGE setup can be displayed even when the status display is turned off. Press the ON button to restore the on-screen status display.

5 **RGB SHIFT button**
Press to adjust the position of picture from the equipment connected to the RGB IN connector. Use the four arrow buttons for adjustment. Pressing the ◀, ▶, ▲, or ▼ button moves the picture in the direction of the arrow.

6 **RGB SIZE button**
Press to adjust the size of picture from the equipment connected to the RGB IN or VIDEO IN connector. Use the four arrow buttons for adjustment.
◀ to reduce the picture size horizontally
▶ to expand the picture horizontally
▲ to expand the picture vertically
▼ to reduce the picture size vertically

7 **CENT (centering) R (red)/B (blue) buttons**
R: Pressing this button displays a test pattern on the screen and enters red centering mode. Use the four arrow buttons for adjustment.
B: Pressing this button displays a test pattern on the screen and enters blue centering mode. Use the four arrow buttons for adjustment.

8 **Arrow buttons**
Use these buttons for centering, RGB/VIDEO SIZE adjustment, RGB SHIFT adjustment and other adjustments.

9 **PJ MUTING buttons**
PIC: Press to blank the picture. To restore the picture, either press the PIC button again or press the CONTR+ button.
AUDIO: Press to mute the sound. To restore the sound, either press the AUDIO button again or press the VOL+ button.

10 **POWER ON/OFF buttons**
These power the projector on or off when the MAIN POWER switch is set to ON.

11 **VOL (volume) +/– buttons**
These control the volume.

12 **PICTURE CONTROL buttons**
Press to adjust picture properties such as contrast, color, brightness, sharpness and hue. To restore the picture to its standard state, press the RESET button.

13 **INPUT SELECT buttons**

When the INPUT SEL/INDEX selector 16 is set to INPUT SEL and the PJ/SWITCHER selector 14 is set to PJ
Press one of the A, B, C and D buttons to select an input to the projector.

When the INPUT SEL/INDEX selector 16 is set to INPUT SEL and the PJ/SWITCHER selector 14 is set to SWITCHER
Press one of the number buttons 1 to 8 to select an input to the optional PC-1271/1271M switcher. When two switchers are connected to the projector, first press the SECOND button, and then press the desired number button to select an input to the second switcher whose SINGLE/SECOND/OTHER switch is set to SECOND.

When the INPUT SEL/INDEX selector 16 is set to INDEX
These buttons function when the optional IFB-101 interface board is installed and multiple projectors are used.
For details about using these buttons, refer to the operating instructions for the IFB-101.

14 **PJ/SWITCHER selector**
When the INPUT SEL/INDEX selector 16 is set to INPUT SEL, this determines which inputs the INPUT SELECT buttons select signals from.
PJ: Select signals from inputs to the projector
SWITCHER: Select signals from inputs to the switcher

15 **PAGE button**
Press to confirm the current settings for various functions. (Pages 1, 2 and 3 provide settings in addition to confirmation.) There are four pages and pressing the button cycles through these pages.
PAGE 1: Displays user settings such as STATUS, PIC MUTING ON/OFF.
PAGE 2: Displays picture properties (contrast, color etc.) and volume.
PAGE 3: Displays color temperature, clamp position and vertical shift range.
PAGE 4: Displays the status of currently selected input signals.

16 **INPUT SEL/INDEX selector**
Set to INPUT SEL when selecting signals from inputs to either the projector or switcher. Set to INDEX when installing the optional IFB-101 interface board and using multiple projectors.

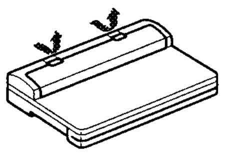
17 **ENTER button**
This functions when the optional IFB-101 interface board is installed and multiple projectors are used.
For details about using this button, refer to the operating instructions for the IFB-101.

18 **CONTROL S OUT connector (phono)**
Connect to the CONTROL S IN connector on the projector when using this commander as a wired Remote Commander.

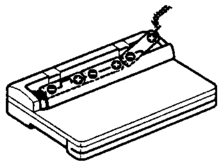
Location and Function of Controls

Battery replacement

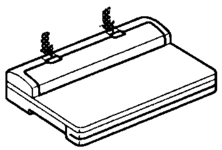
1 Push to open the lid.



2 Insert three AA (R6) batteries, with the correct polarity.



3 Replace the lid.



Notes on batteries

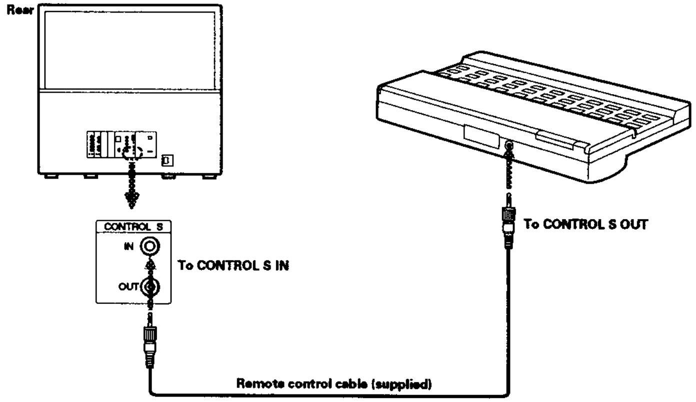
If the batteries are not inserted correctly, they may burst or leak fluid. Note the following points carefully.

- Ensure that the batteries are always inserted with the correct polarity.
- Do not use a combination of new and used batteries, or of different types of batteries.
  The batteries are not rechargeable.
- If the Remote Commander is not to be used for some time, remove the batteries.
  If fluid leakage occurs, wipe the spillage from the battery compartment, and insert new batteries.

Notes on wireless use of the Remote Commander

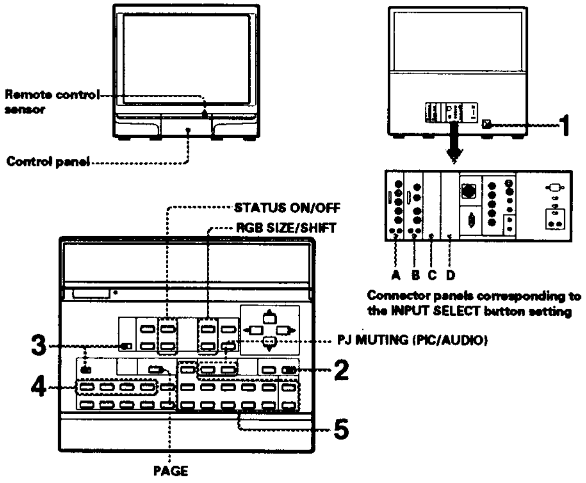
- If there is any obstruction between the Remote Commander and the projector, the Remote Commander will not be able to control the projector.
- The range of wireless operation of the Remote Commander is restricted. The closer the Remote Commander is to the projector, the wider the angle at which control is possible.

Connecting to the projector



Projector Operation

The buttons on the control panel also operate the unit.



1 **Depress the MAIN POWER switch on the rear (▬ ON).**

2 **Press the POWER ON button on the Remote Commander or control panel.**
Leave the unit to warm up for about twenty minutes. (See next page.)
If you wish to use the unit immediately, press the PAGE button.

3 **Set the selectors.**
INPUT SEL/INDEX selector: INPUT SEL
PJ/SWITCHER selector: PJ

4 **Select the video input using the INPUT SELECT buttons.**
A: To show the video from equipment connected to the RGB IN connectors.
B: To show the video from equipment connected either to the Y/C IN or VIDEO IN connector.
C, D: To show the video from equipment connected to an optional interface board installed in the INPUT C or INPUT D slot.

5 **Adjust the picture and sound.**

To turn off the picture or sound individually

To turn off the sound without affecting the picture
Press the PJ MUTING AUDIO button.
To restore the sound, either press the PJ MUTING AUDIO button again, or press the VOL+ button.

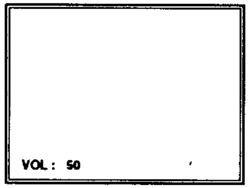
To turn off the picture without affecting the sound
Press the PJ MUTING PIC button.
To restore the picture, either press the PJ MUTING PIC button again, or press the CONTR+ button.

To turn off the on-screen status display

Press the STATUS OFF button. If you press any button in this state, "OFF" is shown at the lower right corner of the screen. Note that the PAGE setup can be displayed even when the status display is turned off.
To restore the on-screen status display, press the STATUS ON button.

Picture and Sound Adjustments

Use the VOL and PICTURE CONTROL buttons on the Remote Commander to make the adjustments.
Adjustment values are indicated as MIN, 1, 2, ... 98, 99, MAX.


VOL : 50

VOL +/- buttons
- + ... increase the volume
- − ... decrease the volume

CONTR +/- buttons
- + ... increase the contrast
- − ... decrease the contrast

COLOR +/- buttons
- + ... make the color more saturated
- − ... make the color less saturated

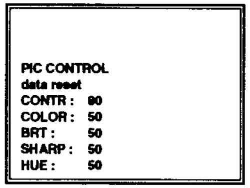
BRT +/- buttons
- + ... increase the brightness
- − ... decrease the brightness

SHARP +/- buttons
- + ... increase the sharpness
- − ... decrease the sharpness

HUE +/- buttons
- + ... make flesh tones greener
- − ... make flesh tones more violet

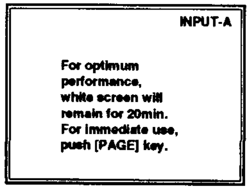
- The COLOR, SHARP and HUE adjustments have no effect on signals input to the RGB IN connectors.
- The HUE adjustment has no effect on PAL or SECAM inputs.

To return to the standard settings
Press the RESET button.
The standard settings are displayed on the screen.


PIC CONTROL
data reset
CONTR : 80
COLOR : 50
BRT : 50
SHARP : 50
HUE : 50

Warming up

After powering on, always allow the projector to warm up for twenty minutes.
To provide the optimum picture quality, after the unit is powered on it automatically shows a white screen for twenty minutes while warming up.
During this time the message as shown on the right is displayed. It disappears after about 35 seconds, but is then shown periodically for about 5 seconds every 30 seconds.


INPUT-A

For optimum
performance,
white screen will
remain for 20min.
For immediate use,
push [PAGE] key.

Checking the Current Settings

Press the PAGE button to display the current settings for various functions as shown below. Pages 1, 2 and 3 provide settings in addition to confirmation.

Pressing the button cycles through these pages as follows.

PAGE 1 → PAGE 2 → PAGE 3 → PAGE 4 → No display → PAGE 1

PAGE 1

```
PAGE 1                 INPUT-A
 USER PRESET
STATUS:         ON
PIC MUTING:     OFF
AUDIO MUTING:   OFF


               NEXT:   [PAGE]
```

STATUS ON/OFF: This setting is preserved when the unit is powered off. When this is set to OFF, no screen status displays appear.
PIC MUTING ON/OFF: This setting is always OFF when the unit is powered on. When set to ON, the screen is blanked.
AUDIO MUTING ON/OFF: This setting is always OFF when the unit is powered on. When set to ON, the audio is muted.

PAGE 2

```
PAGE 2                 INPUT-A
 USER CONTROL
CONTR: 80
COLOR: - -
BRT:    50
SHARP: - -
HUE:   - -
VOL:    50
               NEXT:   [PAGE]
```

Displays picture properties and volume on a scale indicated as MIN, 1, 2, ... 98, 99, MAX.
It is possible to make independent settings for each of the inputs: the currently selected input appears in the top right corner of the screen.
A setting indicated by a pair of dashes is one which cannot be adjusted with the current input. (In the example shown, an RGB video input is being used.)
To change the settings, use the PICTURE CONTROL and VOL buttons.

PAGE 3

```
PAGE 3
 SYSTEM PRESET
COLOR  TEMPERATURE:
 9300   6500   3200   PRESET
CLAMP:  AUTO  SonG  H/C  H-P
V-SHIFT:  WIDE        NARROW


              SELECT: ◀▶▲▼
              NEXT:   [PAGE]
```

Displays color temperature, clamp position and vertical shift adjustments. The currently selected item flashes green. Use the ◀, ▶, ▲, and ▼ buttons to adjust the settings.

COLORTEMPERATURE:9300/6500/3200/PRESET
Normally set to 6500. To make the whites bluish, select 9300, and to make the whites reddish select 3200. For high-definition video or other special signals, to make the color temperature the same as that of a monitor, select PRESET, and adjust.

V-SHIFT:WIDE/NARROW
Normally set to WIDE. When inputting signals such as superimposed signals for which the vertical sync frequency is not fixed, select NARROW to prevent vertical disintegration of the picture.

For details of the CLAMP setting see the section "If the Luminance of the Picture is Incorrect - Clamp Setting" (page 21)

To save the color temperature and clamp settings, press the MEMORY button. *(See page 20.)*

Note

The clamp and vertical shift settings only apply to RGB video inputs.

PAGE 4

```
PAGE 4                 INPUT-A
 USER INFO
fH: 31.5kHz
fV : 60.0Hz
H/C-SYNC:     POS
V-SYNC:       POS
SYNC ON G: NEG
INPUT SIGNAL: RGB
REGI BLOCK: NO.3
          NEXT:      [PAGE]
```

Displays the status of currently selected input signals.
fH: Horizontal scan frequency.
fV: Vertical scan frequency.
H/C-SYNC: Polarity of the horizontal/composite sync signal.
V-SYNC: Polarity of the vertical sync signal.
SYNC ON G: Polarity of the sync on green signal.
POS: Positive polarity.
NEG: Negative polarity.
- - - : No sync signal input.
POS or NEG appearing in green: the sync signal is being used for projection.
POS or NEG appearing in white: the sync signal is input but not being used.
INPUT SIGNAL: Indicates the signal type as follows:
  Y/C: S-video
  RGB: RGB video
  NTSC: NTSC format signal
  PAL: PAL format signal
  SECAM: SECAM format signal
  B & W: Monochrome signal
  Internal oscillation: Using the internal signal generator
REGI BLOCK: Indicates the number of the memory block holding the current registration settings.

Picture Adjustments for an RGB Input

With an RGB input, you can adjust the picture size and position on the screen.
To clear the indications from the screen after adjusting the size and position, press the appropriate INPUT SELECT button again.

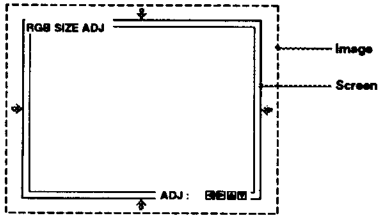
To save the size and position settings in memory, press the MEMORY button. *(See page 20.)*

Adjusting the image size

Make this adjustment if the image size does not match the size of the screen.

1 **Press the RGB SIZE button.**

2 **Use the four arrow buttons to adjust the image size so that it fits the screen.**
- ◀ to reduce the picture size horizontally
- ▶ to expand the picture horizontally
- ▲ to expand the picture vertically
- ▼ to reduce the picture size vertically



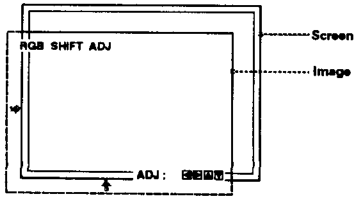
Adjusting the image position

Make this adjustment if the image position is not centered on the screen. (This adjustment is not possible with video input signals.)

1 **Press the RGB SHIFT button.**

2 **Use the four arrow buttons to adjust the image position so that it is centered on the screen.**
- ◀ to shift the picture left
- ▶ to shift the picture right
- ▲ to shift the picture up
- ▼ to shift the picture down

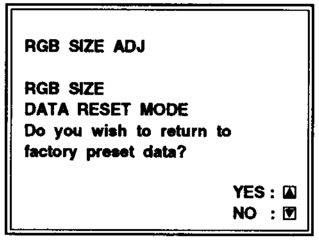
To clear the indications from the screen after adjusting the size and position, press the appropriate INPUT SELECT button again.
To save the size and position settings in memory, press the MEMORY button. *(See page 20.)*



Returning the RGB input size and position settings to their factory defaults

1 **Press the RGB SIZE or RGB SHIFT button.**

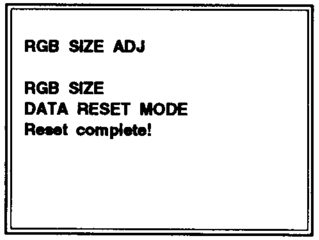
2 **Press the ◀ and ▶ buttons simultaneously.**
A confirmation message appears: "Do you wish to return to factory preset data?"


RGB SIZE ADJ

RGB SIZE
DATA RESET MODE
Do you wish to return to
factory preset data?

YES : ▲
NO : ▼

3 **Press the ▲ button.**
The screen appears as shown below, indicating that the settings have been returned to their factory default values.
To abandon the reset, press the ▼ button.


RGB SIZE ADJ

RGB SIZE
DATA RESET MODE
Reset complete!

Saving Settings in Memory

The following settings can be saved in memory for future use.

Color temperature (PAGE 3) setting
RGB input size and position settings

1 After making the settings, press the MEMORY button.
This saves the settings in memory. During the saving operation the following message appears on the screen, to indicate that while the settings are being saved the buttons are all disabled.

```
MEMORY DATA
in saving


No key may be applicable
during the indication of
this mode.
```

2 When the following message appears, the settings have been saved.

```
MEMORY DATA
saving is
complete!
```

Screen Messages

Message colors: The messages are in four groups, color-coded as follows.

Color	Meaning
Green	Normal functions and settings
Cyan	Operation prompts and messages
Yellow	Warnings, and indications of abnormal states
White	Items on the setting screens, and items not selected on the PAGE screens

Warning messages: The following messages may appear if an operation is not carried out appropriately.

Message	Meaning
Not applicable!	This operation is not applicable.
PIC MUTING	This indicates an attempt to adjust the picture while the screen is blanked. To unblank the screen (i.e. remove the "PIC MUTING" setting), press the PJ MUTING PIC button.
Overflow!	An adjustment has reached the end of its range during RGB input size or position adjustment, or centering adjustment.
OFF	A button has been pressed while the status display is off. To restore the status display, press the STATUS ON button.

If the Luminance of the Picture is Incorrect — Clamp Setting

The clamp level determines the black level of the picture. The reference position for black clamping depends on the video signal type, and normally the internal processor determines the appropriate setting automatically. It is possible, however, for signal noise to cause an error. If the black level of the picture appears to be abnormal, whether too dark, too bright, or uneven, adjust the clamp setting as follows.

1 Press the PAGE button three times.

```
PAGE 3
 SYSTEM PRESET
COLOR TEMPERATURE:
 9300   6500   3200   PRESET
CLAMP:  AUTO   SonG   H/C  H-P
V-SHIFT:  WIDE       NARROW


                 SELECT: ◀▶▲▼
                 NEXT:  [PAGE]
```

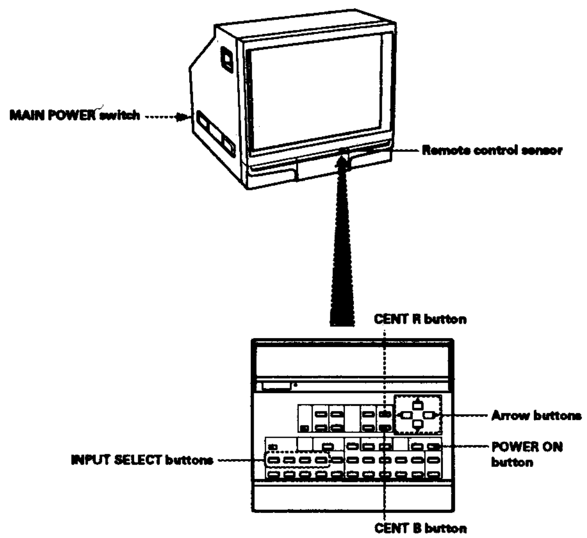
2 Press the ◀, ▶, ▲, and ▼ buttons to select the clamp setting.
AUTO: Automatic clamp setting. This is the normal setting.
S on G: Select this setting when the black level is too bright, or tinged with green.
H/C: Select this setting when the overall picture is too dark, or the brightness is uneven.
H.P: If the luminance is not corrected by selecting either "S on G" or "H/C", select this setting and then adjust the horizontal shift.

3 Press the MEMORY button to save the setting.

If no clamp setting gives a satisfactory picture
It is possible that there is a separate cause of the problem. Check again that the video signal connected is of the correct type, and that the other settings and connections are correct.

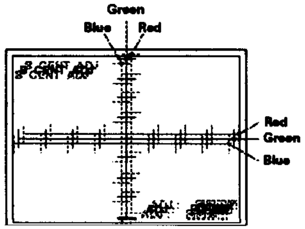
Registration Adjustment

For the projector to operate correctly, the images formed by the separate optical systems for red, green and blue must be correctly aligned, or in registration. Normally the registration requires no adjustment, but if there are colored fringes on white portions of the image, adjust using the following procedure.


MAIN POWER switch
Remote control sensor
CENT R button
Arrow buttons
POWER ON button
INPUT SELECT buttons
CENT B button

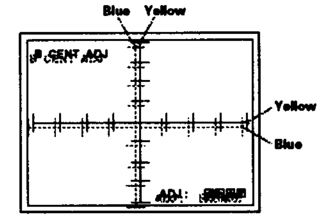
1 **Turn on the MAIN POWER switch on the rear of the main unit, and press the POWER ON button on the Remote Commander, to power the unit on.**

2 **Press the CENT R button.**
The screen shows a test pattern, for centering of the red pattern.


Green
Blue
Red
R CENT ADJ
Red
Green
Blue
ADJ:

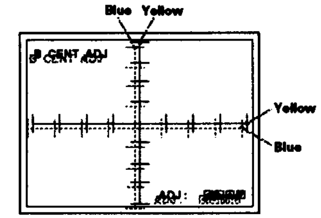
Screen with three colors out of registration

3 **Use the arrow buttons to adjust.**
Use the arrow buttons to align the red lines on the green lines, so that they appear yellow (if the blue lines are also out of registration). The red lines move in the direction shown on each arrow button.


Blue
Yellow
B CENT ADJ
Yellow
Blue
ADJ:

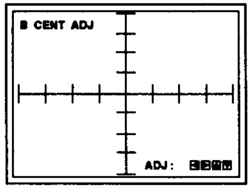
Screen with red and green in registration

4 **Press the CENT B button.**
The blue pattern can now be centered.


Blue
Yellow
B CENT ADJ
Yellow
Blue
ADJ:

Screen with blue out of registration

5 **Use the arrow buttons to adjust.**
Use the arrow buttons to align the blue lines. The blue lines move in the direction shown on each arrow button. When all three colors are properly aligned, the lines will appear white.


B CENT ADJ
ADJ:

Screen with all colors in registration

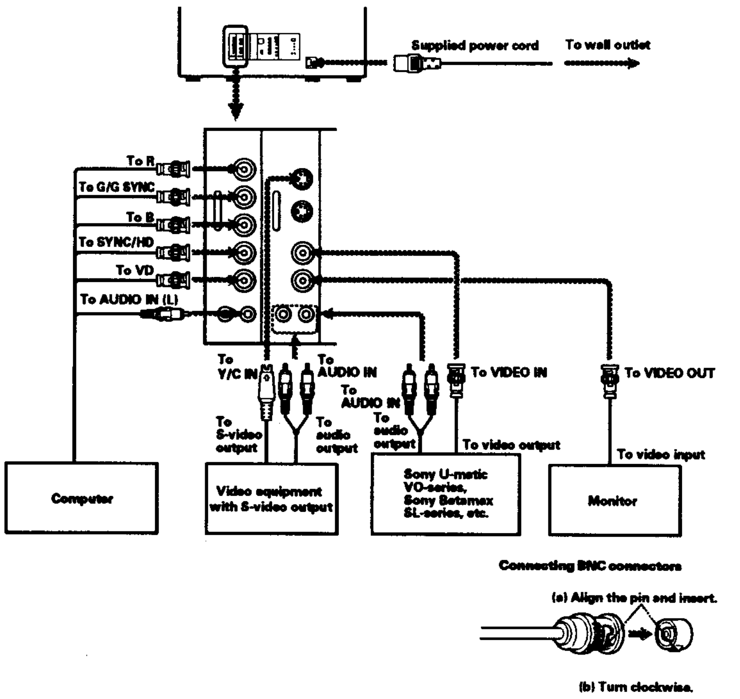
6 **Press the INPUT SELECT button corresponding to the input signals to switch from the test pattern to the input picture.**

System Enhancements

Notes on connection

- Power off all items of equipment before making connections.
- Check that all interface cables have the correct connectors.
- Push connectors into sockets firmly. Always pull the plug, not the cable, when disconnecting.
- When using the REMOTE 1 connector, the maximum cable extent between the projector and switcher is 50 m. Use of a longer cable may lead to loss of picture quality. If you need to extend the cabling beyond 50 m, consult your Sony sales representative.
- For details of connection procedures, refer also to the instructions accompanying the other equipment.

Using INPUT A and INPUT B Connector Panels



Supplied power cord
To wall outlet
To R
To G/G SYNC
To B
To SYNC/HD
To VD
To AUDIO IN (L)
To Y/C IN
To AUDIO IN
To AUDIO IN
To VIDEO IN
To VIDEO OUT
To S-video output
To audio output
To audio output
To video output
To video input
Computer
Video equipment with S-video output
Sony U-matic VO-series, Sony Betamax SL-series, etc.
Monitor
Connecting BNC connectors
(a) Align the pin and insert.
(b) Turn clockwise.

Notes

- If signals are input to the Y/C IN and VIDEO IN connectors simultaneously, signals input to the Y/C IN connector take precedence. Be sure to connect input signals to only one of these connectors.
- If an external sync signal is input, it takes precedence over the internal sync signal. Note, however, that if the external sync signal is defective, the internal sync signal is used.

Notes

- Do not leave a still picture from a computer or video disc player projected for more than one hour.
- Depending on the video adaptor of the computer, the screen area may be reduced, or the screen may be darkened. This does not indicate a malfunction of the projector.

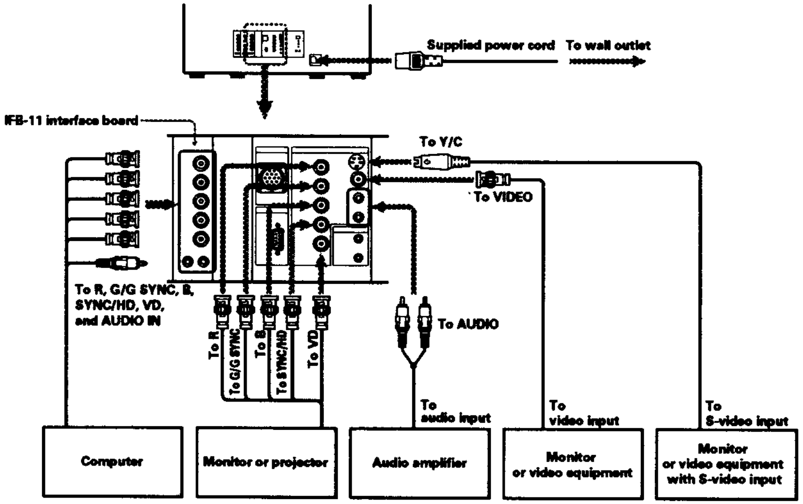
Picture adjustments

If the picture produced by a computer connected with an RGB video connection is off-center, press the RGB SHIFT button, and adjust with the arrow buttons. Similarly, if the picture size needs adjustment, press the RGB SIZE button, and adjust with the arrow buttons. *(See page 18.)*

Using the MONITOR OUT Connector Panel and Interface Boards

You can add up to two more inputs by installing optional IFB-11/20/30/1000/1200/1300 interface boards.

Example: With an IFB-11 board installed in the INPUT C slot

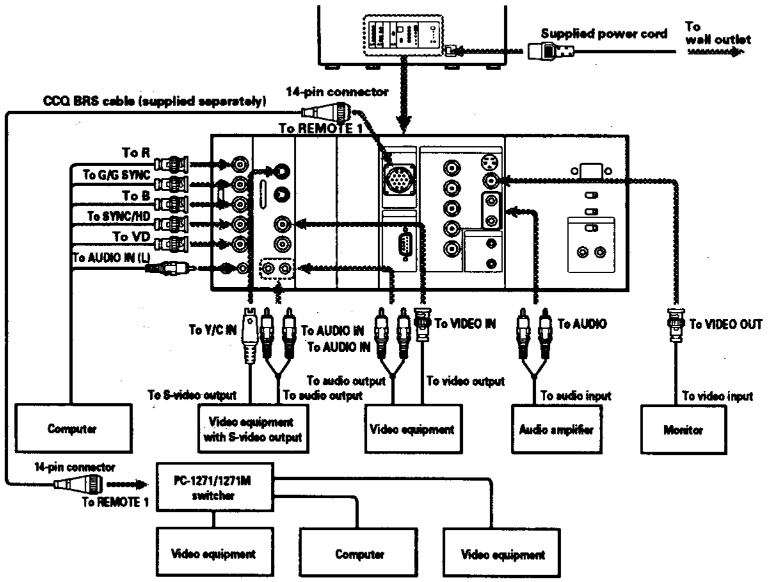


Supplied power cord
To wall outlet
IFB-11 interface board
To Y/C
To VIDEO
To R, G/G SYNC, B, SYNC/HD, VD, and AUDIO IN
To R
To G/G SYNC
To B
To SYNC/HD
To VD
To AUDIO
To audio input
To video input
To S-video input
Computer
Monitor or projector
Audio amplifier
Monitor or video equipment
Monitor or video equipment with S-video input

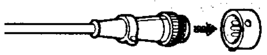
For installation of interface boards, consult your Sony service representative.

Using a Switcher

Using an optional PC-1271/1271M switcher allows you to connect various video devices and switch between them by simply pressing the INPUT SELECT buttons on the control panel or Remote Commander.


Supplied power cord
To wall outlet
CCQ BRS cable (supplied separately)
14-pin connector
To REMOTE 1
To R
To G/G SYNC
To B
To SYNC/HD
To VD
To AUDIO IN (L)
To Y/C IN
To AUDIO IN
To AUDIO IN
To VIDEO IN
To AUDIO
To VIDEO OUT
To S-video output
To audio output
To audio output
To video output
To audio input
To video input
Computer
Video equipment with S-video output
Video equipment
Audio amplifier
Monitor
14-pin connector
To REMOTE 1
PC-1271/1271M switcher
Video equipment
Computer
Video equipment

Connecting the 14-pin connectors



(a) Align the pins and insert.

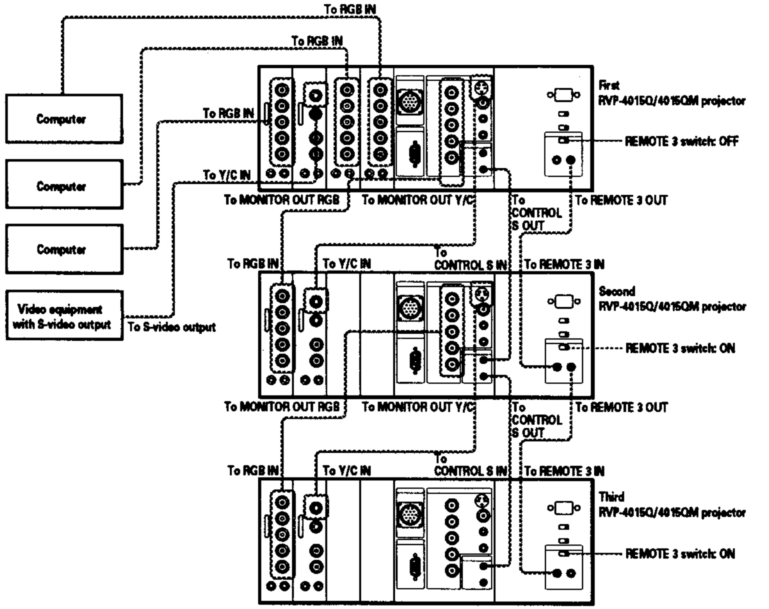
(b) Turn clockwise to lock.

Even when the switcher is connected, you can still directly input signals to the VIDEO IN and RGB IN connectors.

Using the INPUT SELECT buttons on the Remote Commander or control panel

First set the INPUT SEL/INDEX selector to INPUT SEL and PJ/SWITCHER selector to SWITCHER, then press the number button to select the input. When using two switchers and selecting an input to the second switcher (i.e. the one whose SINGLE/SECOND/OTHER switch is set to SECOND), first press the SECOND button, and then press the desired number button.

Connecting Multiple Projectors

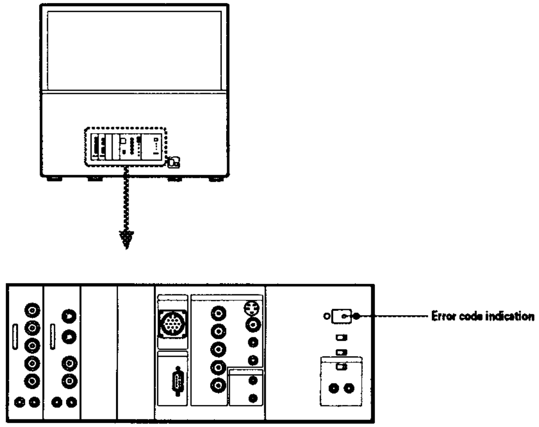

To RGB IN
To RGB IN
To RGB IN
To Y/C IN
To MONITOR OUT RGB
To MONITOR OUT Y/C
To CONTROL S OUT
To REMOTE 3 OUT
First RVP-4015Q/4015QM projector
REMOTE 3 switch: OFF
To RGB IN
To Y/C IN
To CONTROL S IN
To REMOTE 3 IN
Second RVP-4015Q/4015QM projector
REMOTE 3 switch: ON
To MONITOR OUT RGB
To MONITOR OUT Y/C
To CONTROL S OUT
To REMOTE 3 OUT
To RGB IN
To Y/C IN
To CONTROL S IN
To REMOTE 3 IN
Third RVP-4015Q/4015QM projector
REMOTE 3 switch: ON
Computer
Computer
Computer
Video equipment with S-video output
To S-video output

Note that the following restrictions apply when connecting multiple RVP-4015Q/4015QM units and using them at the same time.

- The second and later units in the connection show the video selected with the first projector.
- On the second and later units, set the REMOTE 3 switch to ON.
- The RGB input board (IFB-11) must be installed in the INPUT A slot and video input board (IFB-1000) in the INPUT B slot. If the positions of these boards are wrong, you may not be able to obtain the desired pictures.
- Use a two-core stereo cable (supplied) for connecting the REMOTE 3 connectors.
- When linking projectors by connecting the MONITOR OUT connector of one unit to a video input connector on the INPUT B panel of the next unit, use a combination of either VIDEO and VIDEO IN or Y/C and Y/C IN connectors. Do not mix these two combinations in the same system.

In the Event of Operating Problems

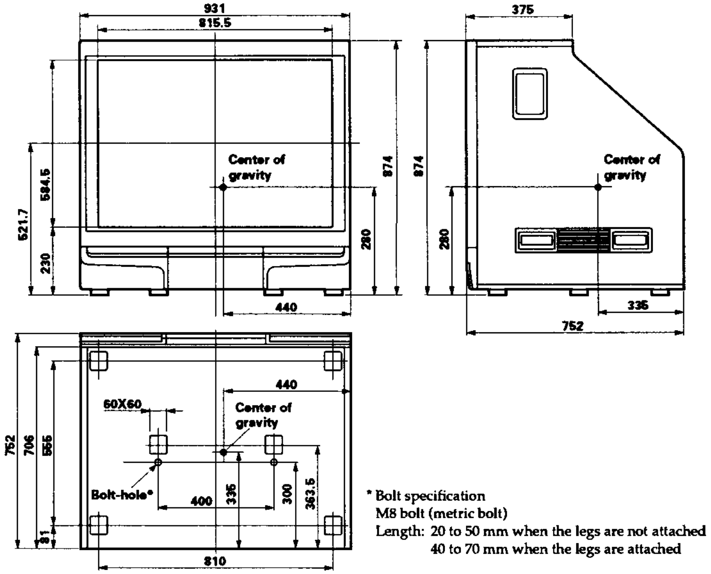
If the projector does not operate, make a note of the error code (two alphanumeric characters) in the error code indicator on the rear. Contact your Sony service representative quoting this error code to ensure prompt repair service.


Error code indication

1-2. INSTALLATION

Dimensions

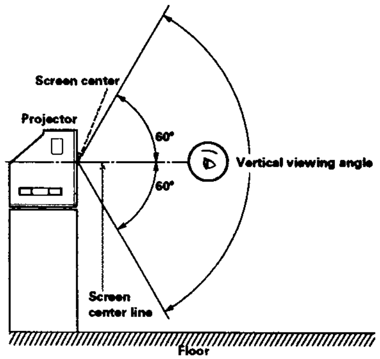
Note: All dimensions are in millimeters.


931
815.5
375
Center of gravity
Center of gravity
Center of gravity
874
874
584.5
521.7
230
280
280
440
336
752
752
706
556
81
60X60
440
Bolt-hole*
400
336
300
363.5
810

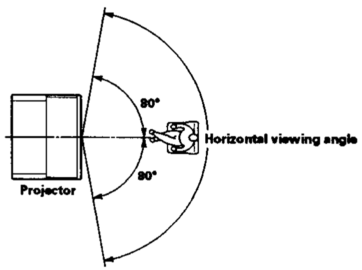
* Bolt specification
M8 bolt (metric bolt)
Length: 20 to 50 mm when the legs are not attached
40 to 70 mm when the legs are attached

Viewing Angle

Vertical viewing angle

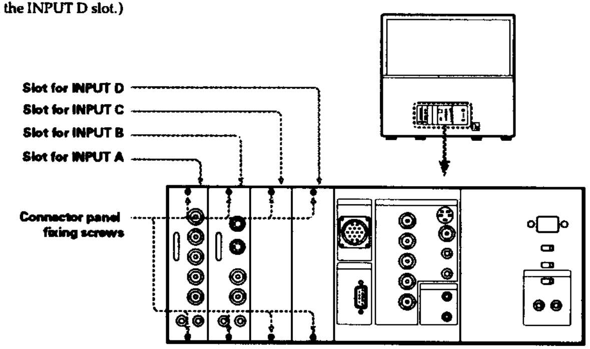

Screen center
Projector
60°
60°
Vertical viewing angle
Screen center line
Floor

Horizontal viewing angle


80°
80°
Horizontal viewing angle
Projector

System Expansion

By installing optional interface boards in the slots for INPUT C and INPUT D, you can add additional inputs. It is also possible to replace the interface boards in the slots for INPUT A and INPUT B. (The IFB-101 interface board can only be installed in the INPUT D slot.)



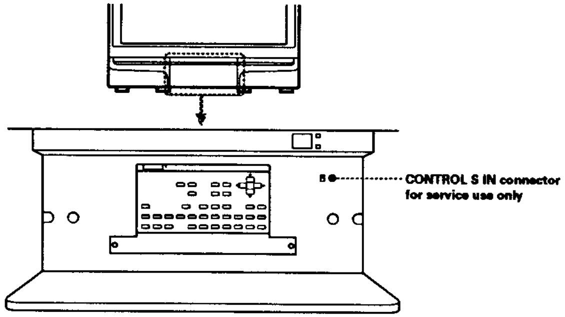
Removing interface boards and covers

Loosen the fixing screws of the connector panel, and pull it toward you.

Signal selection

Set the INPUT SEL/INDEX selector of the Remote Commander to INPUT SEL, and set the PJ/SWITCHER selector to PJ, then use the INPUT SELECT A, B, C and D buttons on the Remote Commander to select the input signal.

Adjustments when using several RVP-4015Q/4015QM projectors connected together



When making adjustments for a system such as that shown on page 27 of the Operating Instructions, connect the remote commander to the CONTROL S IN connector (for service use only) on the front panel of the projector to be adjusted, using the supplied remote control cable. In this case, the unit does not accept control signals input to the CONTROL S IN connector or REMOTE 1 connector and you can adjust the desired projector alone. If you connect the remote commander to the CONTROL S IN connector on the rear panel, the settings of the other projectors connected will also change. The signal input to the CONTROL S IN connector (for service use only) on the front panel is not output from the CONTROL S IN connector on the rear panel.

Remote Control Operation

All adjustments on this projector can be carried out from the RM-PJ4010 Remote Commander. This Remote Commander can be used for infrared wireless control, or connected to the projector with the supplied interface cable. This latter method is recommended for these adjustments. The controls on the front panel also function in the same way.

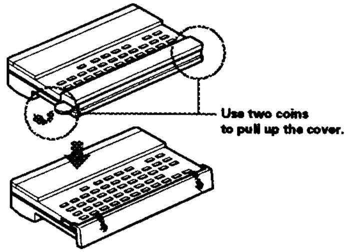
Preparation

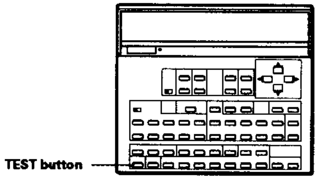
1 **Insert three AA (R6) batteries, with the correct polarity.**

2 **Connect the Remote Commander to the CONTROL S IN connector on the rear panel of the projector.**

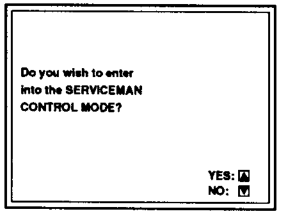
3 **Turn the MAIN POWER switch of the projector on, and press the POWER ON button on the Remote Commander.**

4 **Remove the cover over the controls for servicing purposes only.**
The RM-PJ4010 controls are divided into user buttons and servicing buttons. The servicing buttons are protected by a cover which must be opened before they can be used.





5 **Hold the TEST button down for at least 5 seconds.**



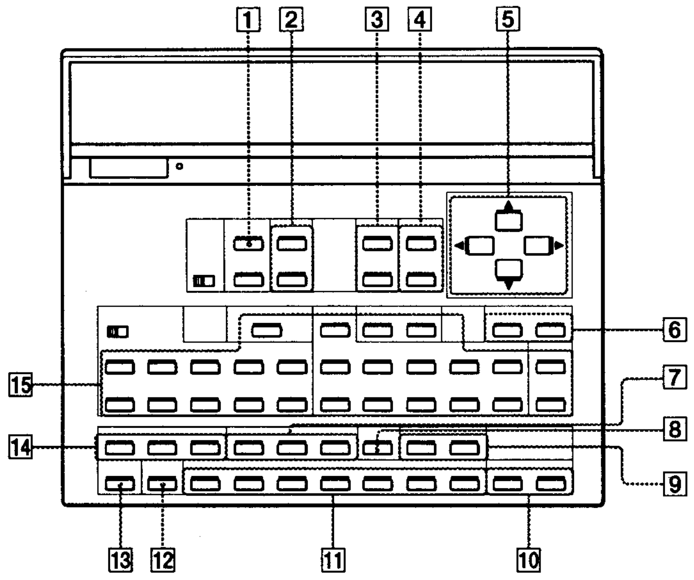
Do you wish to enter
into the SERVICEMAN
CONTROL MODE?

YES: ▲
NO: ▼

6 **Press the ▲ button (YES).**
The servicing buttons are now enabled.

Remote Control Operation

Remote Commander buttons



1 MEMORY button
Press to save the settings.

2 STATUS ON/OFF buttons
Press the OFF button to turn off the on-screen status display. Note that the PAGE setup can be displayed even when the status display is turned off. Press the ON button to restore the on-screen status display.

3 RGB SIZE/SHIFT buttons
Press to adjust the size or position of the picture from equipment connected to the RGB IN connectors.
SIZE: Press to adjust the size with the four arrow buttons as follows.
◀ to reduce the picture size horizontally
▶ to expand the picture horizontally
▲ to expand the picture vertically
▼ to reduce the picture size vertically
SHIFT: Press to adjust the position with the four arrow buttons.
Pressing the ◀, ▶, ▲, or ▼ button moves the picture in the direction of the arrow.

4 CENT (centering) R (red)/B (blue) buttons
R: Pressing this button displays a test pattern on the screen and enters red centering mode. Use the four arrow buttons for adjustment.
B: Pressing this button displays a test pattern on the screen and enters blue centering mode. Use the four arrow buttons for adjustment.

5 Arrow buttons
Use these buttons for centering, RGB/VIDEO SIZE adjustment, RGB SHIFT adjustment and other adjustments.

6 POWER ON/OFF buttons
These power the projector on or off when the MAIN POWER switch is set to ON.

7 ADJ R/G/B (adjust red/green/blue) buttons
R: Select red.
G: Select green. (Servicing only. If you inadvertently change the green setting, perform a "factory reset" as described on page 27.)
B: Select blue.

8 BLKG (blanking) button
Press to carry out a blanking adjustment.
For details see the section "Miscellaneous Adjustments" *(page 24).*

9 W/B (white balance) button
Adjust the white balance and black balance.
BIAS: Cutoff adjustment
GAIN: Drive adjustment

10 POSITION buttons
Used for zone and blanking adjustments.
For details see the corresponding adjustments.

11 REGISTRATION buttons
Press these buttons to carry out the size, linearity, skewness, bow, keystone, pincushion and zone adjustments.
For details see the corresponding adjustments.

12 NORMAL button
Press this button to clear the test pattern.

13 TEST button
Press this button to display the test pattern. There are a total of eight different test patterns, and pressing this buttons cycles through all eight. For focusing, registration and white balance adjustments, pressing this button provides the appropriate test pattern.
For details see "Test Patterns".

14 CUT OFF buttons
During registration operations, use these buttons to cut the respective color signals. Pressing the button again restores the color.
R: red
G: green
B: blue

Remote Control Operation

⑮ **User control buttons**

VOL (volume) +/– buttons
These control the volume.

PICTURE CONTROL buttons
Press to adjust picture properties such as contrast, color, brightness, sharpness and hue. To restore the picture to its standard state, press the RESET button.

INPUT SELECT buttons

When the INPUT SEL/INDEX selector is set to INPUT SEL and the PJ/SWITCHER selector is set to PJ
Press one of the A, B, C and D buttons to select an input to the projector.

For details of the A, B, C and D input slots, see page 4.

When the INPUT SEL/INDEX selector is set to INPUT SEL and the PJ/SWITCHER selector is set to SWITCHER
Press one of the number buttons 1 to 8 to select an input to the optional PC-1271/1271M switcher. The SECOND button is used when two switchers are connected to the projector. To select an input to the second switcher (whose SINGLE/SECOND/OTHER switch is set to SECOND) first press the SECOND button, and then press the desired number button.

When the INPUT SEL/INDEX selector is set to INDEX
These buttons function when the optional IFB-101 interface board is installed and multiple projectors are used.

For details about using these buttons, refer to the operating instructions for the IFB-101.

PAGE button
Press to confirm the current settings for various functions. (Pages 1, 2, 3 and 5 provide settings in addition to confirmation.) There are five pages and pressing the button cycles through these pages.

PAGE 1: Displays user settings such as STATUS, PIC MUTING ON/OFF.

PAGE 2: Displays picture properties (contrast, color etc.) and volume.

PAGE 3: Displays color temperature, clamp position and vertical shift range.

PAGE 4: Displays the status of currently selected input signals.

PAGE 5: Displays the CRT operating hours and RS-422 baud rate.

PJ MUTING buttons

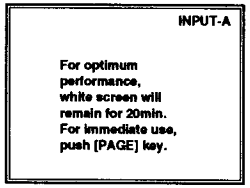
PIC: Press to blank the picture. To restore the picture, either press the PIC button again or press the CONTR+ button.

AUDIO: Press to mute the sound. To restore the sound, either press the AUDIO button again or press the VOL+ button.

Adjustment Sequence

Before making adjustments

Before making adjustments, after powering on, always allow the projector to warm up for twenty minutes.
To provide the optimum picture quality, after the unit is powered on it automatically shows a white screen for twenty minutes while warming up. During this time the following message is displayed. It disappears after about 35 seconds, but is then shown periodically for about 5 seconds every 30 seconds.



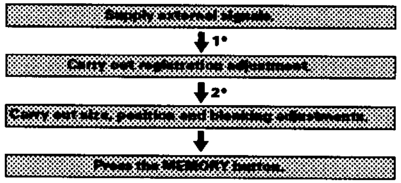
INPUT-A

For optimum performance, white screen will remain for 20min. For immediate use, push [PAGE] key.

When all adjustments are complete, to view the input video from the connected devices, press the PAGE button.
It is also possible to shorten the warming up time or allow the input video to be displayed immediately. (See page 29.)

Adjustment sequence

Use the supplied Remote Commander to make the adjustments.
It is possible to carry out all adjustments with the test pattern signal, which is internally generated, but individual adjustment for different input signals is recommended. If using a number of inputs, make all the system connections before adjusting.
Carry out the adjustments in the sequence indicated by the following flowchart.


Supply external signals.
1*
Carry out registration adjustment.
2*
Carry out size, position and blanking adjustments.
Press the MEMORY button.

1*: Refocus the lenses if the distortion is severe.
2*: Carry out the white balance adjustment if necessary.

Screen Messages

Message colors

The messages are in four groups, color-coded as follows.

Color	Meaning
Green	Normal functions and settings
Cyan	Operation prompts and messages
Yellow	Warnings, and indications of abnormal states
White	Item to be adjusted, and items currently not selected on the PAGE screens

Warning messages

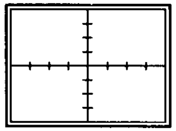
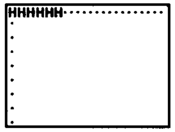
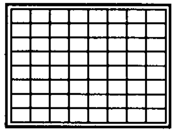
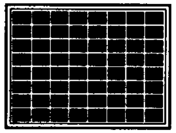
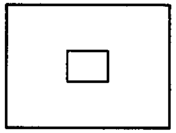
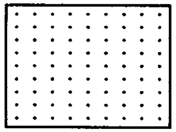
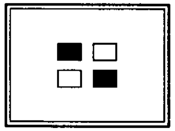
The following messages may appear if an operation is not carried out appropriately.

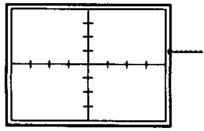
Message	Meaning
Not applicable!	This operation is not applicable.
PIC MUTING	This indicates an attempt to adjust the picture while the screen is blanked. To unblank the screen (i.e. remove the "PIC MUTING" setting), press the PJ MUTING PIC button.
Overflow!	An adjustment has reached the end of its range during RGB input size or position adjustment, or registration adjustment.
OFF	A button has been pressed while the status display is off. To restore the status display, press the STATUS ON button.

Test Patterns

When you select an adjustment mode, the appropriate test pattern appears. It is also possible to display the test patterns in turn at any time, by pressing the TEST button.

Test Pattern Types

Cross hair		**H**	
Hatch (9 x 9)		**White**	
Hatch (reverse)		**Window**	
Dot		**PLUGE*** * PLUGE: Picture Line Up Generating Equipment	



The bold line in this figure indicates the border of the screen.

Test Patterns for Different Adjustments

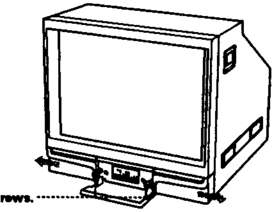
Mode		**Pattern displayed by TEST button**
Normal (i.e. not an adjustment)		→ Cross hair → Hatch (9 x 9) → Hatch (reverse) PLUGE ← Window← White ← H ← Dot
Registration	Size, linearity, skewness, and bow	Cross hair → Hatch (9 x 9) (Select whichever is more convenient.)
	Keystone and pincushion	Hatch (5 x 5) → Hatch (9 x 9) (Select whichever is more convenient.)
	Zone	Hatch (9 x 9) plus cursor
White balance	BIAS	PLUGE
	GAIN	Window → White
Blanking		Hatch (9 x 9)
Centering		Cross hair

Lens Focusing

This adjustment is not normally necessary. Only carry it out if the color blurring is severe.

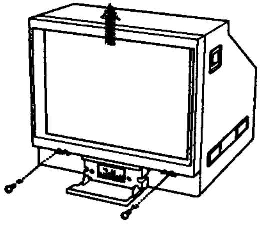
Preparation

1 **Slide the front panels to right and left.**

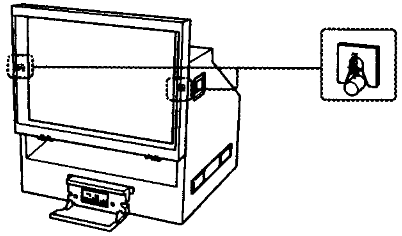


Loosen the screws.

2 **Lift up the screen.**



3 **Hook the fastenings on the rear of the screen on the pins on the main cabinet, to fix the screen in the raised position.**



4 **Connect the power.**

5 **Turn the MAIN POWER switch of the projector on.**

6 **Press the POWER ON button on the Remote Commander. This powers on the main unit.**

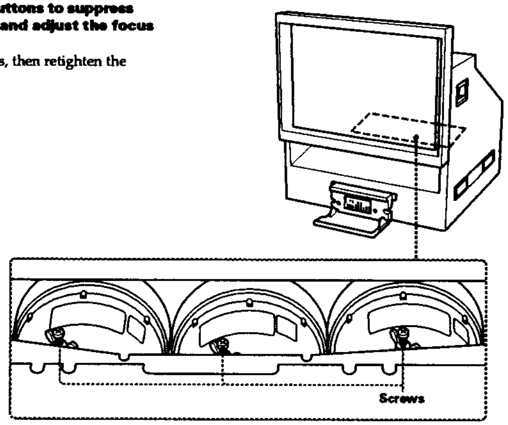
7 **Switch the Remote Commander to the servicing mode. (Steps 5 and 6 on page 5).**

Adjustment

Adjustment of the projector lens focus will be easier if you set the contrast to MIN (minimum) using the CONTR– button.

1 **Press the TEST button 5 times.** The H test pattern appears.

2 **Press the CUT OFF R and B buttons to suppress the red and blue projectors, and adjust the focus of the green projector lens.**
Loosen the screw, adjust the focus, then retighten the screw.



3 **Press the CUT OFF G and B buttons to suppress the green and blue projectors, and adjust the focus of the red projector lens.**

4 **Press the CUT OFF G and R buttons to suppress the green and red projectors, and adjust the focus of the blue projector lens.**

5 **Return the screen to its normal position and refit the covers.**

Registration Adjustment

Procedure for Adjusting the Registration

	See page
1 Adjust the red projection system. ① Centering adjustment ② Size and linearity adjustment ③ Skewness and bow adjustment ④ Keystone and pincushion adjustment ⑤ Zone adjustment	15
⬇	
2 Adjust the blue projection system. ① Centering adjustment ② Size and linearity adjustment ③ Skewness and bow adjustment ④ Keystone and pincushion adjustment ⑤ Zone adjustment	22
⬇	
3 Carry out blanking adjustment.	24
⬇	
4 Save the settings as standard data in memory.	25

Adjusting the Red Registration

Adjust the red image. When the red image is in registration with the green image, it makes a yellow image.

Red centering adjustment

Align the center of the red image with the center of the green image.

1 **Press the ZONE button.**
The hatch test pattern appears with a cursor.
If the cursor is not in the center, press the POSITION buttons to move it to the center.

2 **Press the ADJ R button.**

3 **Press the CUT OFF B button, to project red and green only.**

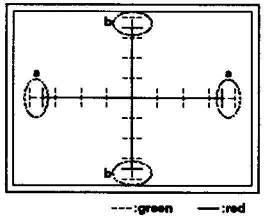
4 **Press the ◄, ►, ▲, and ▼ buttons to move the center of the red hatch to the green center.**

Note
At this stage do not carry out any zone adjustments other than centering.

Red size and linearity adjustment

1 **Press the LIN button.**
If desired, press the TEST button to change to the 9 x 9 hatch pattern.

2 **Press the ADJ R button.**
Concentrate on the portions circled in the figure.



3 **Use the ◀ and ▶ buttons to move the left and right edges of the red image ('a' in the figure) to coincide with the left and right edges of the green image.**
The ◀ button moves both left and right edges to the left while the center remains stationary.
The ▶ button moves both left and right edges to the right while the center remains stationary.

4 **Press the SIZE button.**

5 **Use the ◀ and ▶ buttons to move the left and right edges of the red image ('a' in the figure) to coincide with the left and right edges of the green image.**
The ◀ button shrinks the image.
The ▶ button expands the image.

6 **If the red and green images still do not coincide, press the LIN button again and repeat steps 3 to 5 as necessary.**

7 **If the center is not aligned correctly, repeat the centering procedure (page 15), then repeat steps 1 to 6.**

8 **Press the LIN button.**

9 **Use the ▲ and ▼ buttons to move the top and bottom edges of the red image ('b' in the figure) to coincide with the top and bottom edges of the green image.**
The ▲ button moves both top and bottom edges up while the center remains stationary.
The ▼ button moves both top and bottom edges down while the center remains stationary.

10 **Press the SIZE button.**

11 **Use the ▲ and ▼ buttons to move the top and bottom edges of the red image ('b' in the figure) to coincide with the top and bottom edges of the green image.**
The ▲ button expands the image.
The ▼ button shrinks the image.

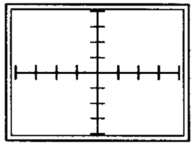
12 **If the red and green images still do not coincide, repeat steps 8 to 11 as necessary.**

13 **If the center is not aligned correctly, repeat the centering procedure (page 15), then repeat steps 8 to 12.**

14 **When the adjustment is complete, press the MEMORY button.**

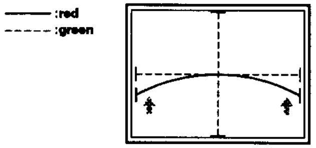
Red skewness and bow adjustment

Horizontal line adjustment
Concentrate on the central thick line.

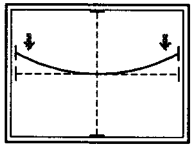


1 **Press the BOW button.**
If desired, press the TEST button to change to the 9 x 9 hatch pattern .

2 **Use the ▲ and ▼ buttons to make the horizontal red line coincide with the horizontal green line.**



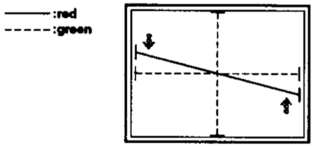
The ▲ button moves both left and right ends up.



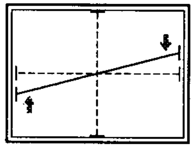
The ▼ button moves both left and right ends down.

3 **Press the SKEW button.**

4 **Use the ▲ and ▼ buttons to make the horizontal red line coincide with the horizontal green line.**



The ▲ button rotates the line counterclockwise.



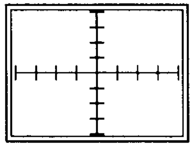
The ▼ button rotates the line clockwise.

5 **Repeat steps 1 to 4 until the red and green lines coincide.**

6 **When the adjustment is complete, press the MEMORY button.**

Red skewness and bow adjustment

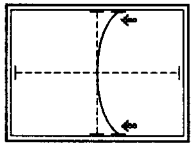
Vertical line adjustment
Concentrate on the central thick line.



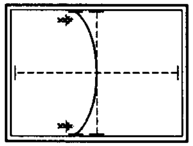
1 **Press the BOW button.**
If desired, press the TEST button to change to the 9 x 9 hatch pattern.

2 **Use the ◀ and ▶ buttons to make the vertical red line coincide with the vertical green line.**

——— :red
- - - - - :green



The ◀ button moves both top and bottom ends to the left.

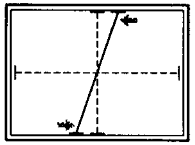


The ▶ button moves both top and bottom ends to the right.

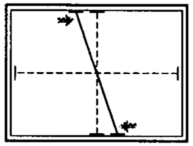
3 **Press the SKEW button.**

4 **Use the ◀ and ▶ buttons to make the vertical red line coincide with the vertical green line.**

——— :red
- - - - - :green



The ◀ button rotates the line counterclockwise.



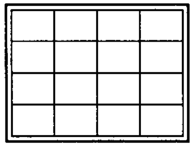
The ▶ button rotates the line clockwise.

5 **Repeat steps 1 to 4 until the red and green lines coincide.**

6 **When the adjustment is complete, press the MEMORY button.**

Red keystone and pincushion adjustment

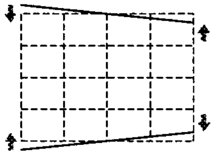
Horizontal line adjustment
Concentrate on the thick lines at top and bottom.



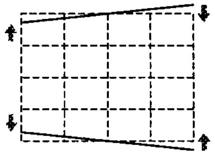
1 **Press the KEY button.**
If desired, press the TEST button to change to the 9 x 9 hatch pattern.

2 **Use the ▲ and ▼ buttons to make the red lines horizontal.**

——— :red
- - - - - :green



The ▲ button expands the right side.

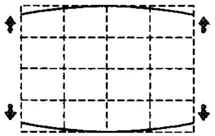


The ▼ button shrinks the right side.

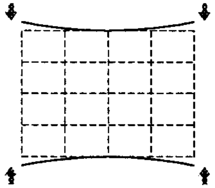
3 **Press the PIN button.**

4 **Use the ▲ and ▼ buttons to make the red lines horizontal.**

——— :red
- - - - - :green



The ▲ button expands the left and right sides.



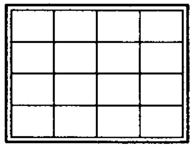
The ▼ button shrinks the left and right sides.

5 **Repeat steps 1 to 4 until the red and green lines coincide.**

6 **When the adjustment is complete, press the MEMORY button.**

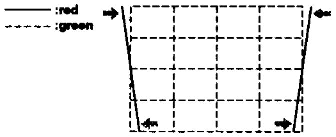
Red keystone and pincushion adjustment

Vertical line adjustment
Concentrate on the thick lines at left and right.

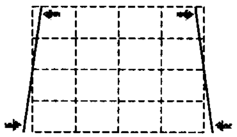


1 **Press the KEY button.**
If desired, press the TEST button to change to the 9 x 9 hatch pattern.

2 **Use the ◀ and ▶ buttons to make the red lines vertical.**



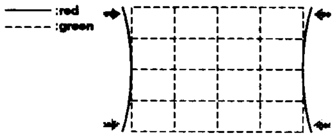
The ◀ button expands the bottom.



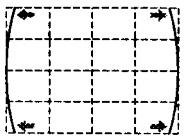
The ▶ button shrinks the bottom.

3 **Press the PIN button.**

4 **Use the ◀ and ▶ buttons to make the red lines vertical.**



The ◀ button shrinks the top and bottom edges.



The ▶ button expands the top and bottom edges.

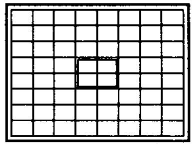
5 **Repeat steps 1 to 4 until the red and green lines coincide.**

6 **When the adjustment is complete, press the MEMORY button.**

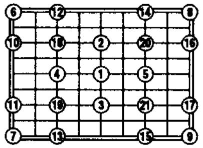
Red zone adjustment

Having completed the adjustments described on pages 15 to 20, and aligned the red image as far as possible, carry out the following adjustment.

1 **Press the ZONE button.**
The 9 x 9 hatch pattern and cursor appear.



2 **Use the POSITION +/– buttons to select the zone to be adjusted.**
+: Cycle through the zones in the order numbered in the figure.
–: Cycle through the zones in reverse order.
The selected zone number appears in the upper right corner of the screen, as e.g. "POSITION No. 6".



3 **Use the ◀, ▶, ▲, and ▼ buttons to correct for any red distortion in the vicinity of the cursor.**
The cursor position ① provides centering correction.

4 **When the adjustment is complete, press the MEMORY button.**

This completes the red adjustment. Next adjust the blue test pattern.

Adjusting the Blue Registration

Adjust the blue image. When the blue image is in registration with the red image, it makes a magenta image.

Blue centering adjustment

Align the center of the blue image with the center of the red image.

1 **Press the ZONE button.**

2 **Press the ADJ B button.**

3 **Press the CUT OFF G button, to project blue and red only.**

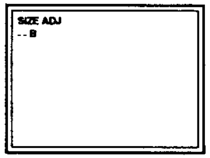
4 **Press the ◄, ►, ▲, and ▼ buttons to move the center of the blue hatch to the green center.**

Note

At this stage do not carry out any zone adjustments other than centering.

Blue size, linearity, skewness, bow, keystone, pincushion and zone adjustments

Align the blue test pattern with the red image. The method of carrying out the adjustments is the same as for the red image, as described on pages 15 to 21.
Check that the "ADJ B" indication is showing.



When the blue adjustment is complete, press the MEMORY button.

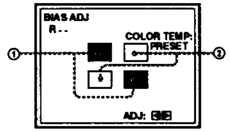
White Balance Adjustment

The white balance adjustment serves to ensure that white portions of the image are truly white and black portions are truly black. The unit is shipped with color temperatures of 9300 K, 6500 K and 3200 K preset, and the appropriate setting is selected automatically according to the input signal. No white balance adjustment is therefore normally needed.

To make a setting additional to the three above settings for a particular input source, use the PAGE button to select PAGE 3 of the status displays, then **after using the arrow buttons to select PRESET**, use the following procedure to adjust the setting. This setting will only, however, be used when the signal connected at the time you made the setting is used.
There are two white balance adjustments: the bias adjustment (the black level adjustment) and the gain adjustment (the white level adjustment).
Make these two adjustments alternately a few times. Here the PICTURE value is automatically set to 80% and the BRIGHTNESS value to 50%.
Usually the adjustment is made with the internally generated test pattern, but by holding down the TEST button for 5 seconds, it is also possible to switch to an external signal.

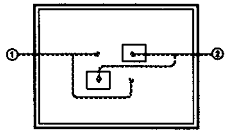
1 Black level adjustment

1 **Press the W/B BIAS button.**
The PLUGE test pattern appears.



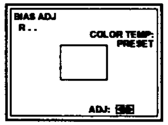
2 **Press the ADJ R, G or B button to select the required color.**

3 **Using the ◄ and ► buttons, adjust the brightness of the selected color.**
► : Makes it brighter.
◄ : Makes it darker.
Make the portions ① as dark as possible (the same as the background) and the portions ② pale white.



2 White level adjustment

1 **Press the W/B GAIN button.**
The window test pattern appears.



2 **Press the ADJ R and B buttons to select the required color.**
No green adjustment is necessary.

3 **Using the ◄ and ► buttons, adjust the brightness of the selected color.**
► : Makes it brighter.
◄ : Makes it darker.
The interior of the window should eventually be pure white.

4 **Press the MEMORY button.**
This saves the settings in memory.

Miscellaneous Adjustments

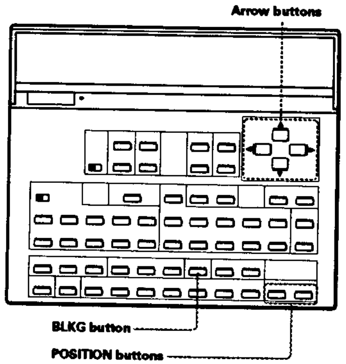
Picture Adjustments for an RGB Input

Connect an external video input, project, and adjust.
See the Operating Instructions (page 18) for details.

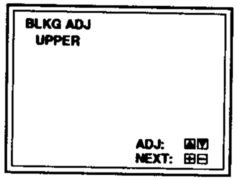
Blanking Adjustment

If the image from an input signal is bigger than the screen, carry out the blanking adjustment to trim the excess.

Buttons for blanking adjustment



1 **Press the BLKG button to enter blanking adjustment mode.**


BLKG ADJ
UPPER

ADJ: ▲▼
NEXT: ⊞⊟

2 **Use the POSITION +/– buttons to select the portion to be trimmed.**
Pressing the buttons cycles through the portions to be trimmed, as follows.
+ : UPPER (edge) → LOWER (edge) → LEFT → RIGHT
– : In reverse order to + button

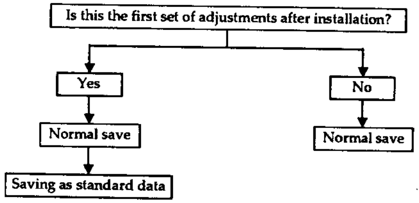
3 **When trimming the upper or lower edge, adjust with the ▲ and ▼ buttons.**
When trimming the left or right edge, adjust with the ◀ and ▶ buttons.

4 **After adjustment, press the MEMORY button.**

After completing the adjustment thus far, save the settings in memory.
For details see the next section "Saving Adjustment Data."

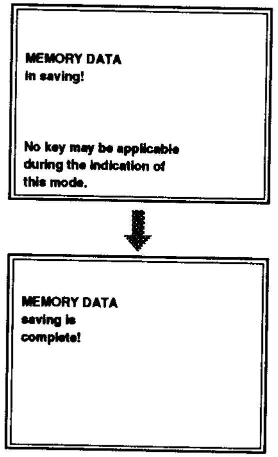
Saving Adjustment Data

After completing the adjustments, save the settings in memory. The first time you make adjustments after installation, there are two levels at which you can save the settings.



Normal saving

After making the adjustments, press the MEMORY button. (Do not hold it down.) This saves the settings for this input signal. While the settings are being saved the buttons are all disabled.


MEMORY DATA
in saving!

No key may be applicable during the indication of this mode.

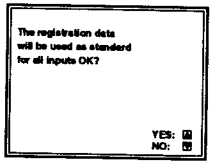
MEMORY DATA
saving is
complete!

The normal saving is completed.

Saving as standard data

If you save the registration data for a particular signal as standard data, then when signals of different horizontal scan frequencies are input, the registration data for these signals is computed appropriately.

1 **After completing normal saving, hold the MEMORY button down for at least 3 seconds.**
This switches to standard data saving mode.


The registration data
will be used as standard
for all inputs OK?

YES: ▲
NO: ▼

2 **Press the ▲ button (YES).**
This saves all the registration settings as standard data.

Note
This overwrites all currently entered registration settings for any number of different signals with the new standard data settings.

Saving Adjustment Data

Reference: types of adjustment data and conditions for saving in memory

The conditions for saving adjustment data in memory are different for different types of data.

Memory division	Data held	How different data sets are distinguished	Timing for data saving
Channel memory	Picture control and volume settings	By input connector	• When input connector changes • When unit is powered off
Status memory	RGB input size and position, blanking settings, color temperature selection (9300/6500/3200/preset), clamp pulse position, vertical shift setting	Horizontal and vertical scan frequencies of input signal; synchronization state; input connector	• When MEMORY button is pressed • When unit is powered off
Registration memory	Registration data	By input signal horizontal scan frequency	• When MEMORY button is pressed • When input connector changes • When horizontal scan frequency changes • When unit is powered off
Color temperature memory	White balance bias and gain setting	By color temperature selection (9300/6500/3200/preset)	• When MEMORY button is pressed • When input connector changes • When color temperature selection changes • When unit is powered off

Notes

- If you power off the unit from the Remote Commander, all settings are saved, and recalled when the unit is next powered on.
- **Always power off the unit from the Remote Commander before turning off the MAIN POWER switch on the projector.** If you turn off the MAIN POWER switch on the projector first, the settings will be lost.

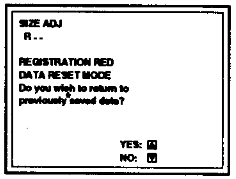
Data Reset

There are two different levels of reset: a user reset, which returns settings to their previously saved values, and a factory reset, which returns settings to their factory default values.

Carrying out a user reset

1 **Select the mode for which you wish to carry out the reset.**

2 **Press the ◀ and ▶ buttons simultaneously.**



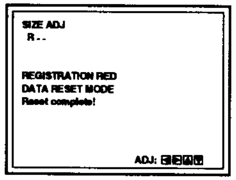
SIZE ADJ
R - -

REGISTRATION RED
DATA RESET MODE
Do you wish to return to
previously* saved data?

YES: ▲
NO: ▼

* Check that the screen is as above, referring to "previously saved data".
(Example: To return the red registration settings to their previously saved values.)

3 **Press the ▲ button (YES).**



SIZE ADJ
R - -

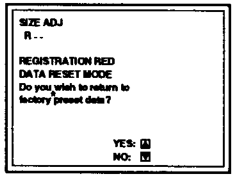
REGISTRATION RED
DATA RESET MODE
Reset complete!

ADJ: ◀▶▲▼

This resets the settings for the selected mode to their previously saved values.

Carrying out a factory reset

1 **Carry out steps 1 through 3 of the procedure for a user reset, and then press the ◀ and ▶ buttons simultaneously once more.**



SIZE ADJ
R - -

REGISTRATION RED
DATA RESET MODE
Do you wish to return to
factory* preset data?

YES: ▲
NO: ▼

* Check that the screen is as above, referring to "factory preset data".
(Example: To return the red registration settings to their factory preset values.)

2 **Press the ▲ button (YES).**
This resets the settings for the selected mode to their factory preset values.

Data Reset

Resetting Registration Standard Settings to Their Factory Preset Values

If you have made registration adjustments and saved the settings to memory before, and if you are going to make registration adjustments again, first use the following procedure to return the registration adjustments to their factory preset values.

1 **Press the CENT R and CENT B buttons simultaneously, and switch to green centering mode.**

2 **Carry out a factory reset (page 27)**
This returns all red, green and blue centering adjustments to their factory preset values.

3 **Press the SIZE button.**

4 **Press the ADJ G button, then carry out a factory reset.**
This returns the green size, linearity, skewness, bow, keystone, pincushion and zone adjustments to their factory preset values.

5 **Press the ADJ R button, then carry out a factory reset.**
This returns the red size, linearity, skewness, bow, keystone, pincushion and zone adjustments to their factory preset values.

6 **Press the ADJ B button, then carry out a factory reset.**
This returns the blue size, linearity, skewness, bow, keystone, pincushion and zone adjustments to their factory preset values.

7 **Press the BLKG button.**

8 **Press the TEST button, then carry out a factory reset.**
This returns all blanking settings to their factory preset values.

Data reset in different modes

Mode	Data reset
RGB SIZE	H-size, V-size
RGB SHIFT	H-shift, V-shift
G-centering	All red, blue, and green centering data
R-centering	Cannot be reset
B-centering	Cannot be reset
SIZE, LIN, SKEW, BOW, KEY, PIN	All registration data (including zone settings) for selected color
ZONE	Zone settings for selected color
BLKG	Top, bottom, left and right blanking data
GAIN	Red, blue and green gain settings for currently selected color temperature
BIAS	Red, blue and green bias settings for currently selected color temperature

Changing the Warming Up Time

It is possible to set the warming up time after the power is turned on, in one-minute units.

1 **Put the remote commander into service mode.** (See page 5.)

2 **Hold down the POWER ON button of the remote commander for at least 5 seconds.**
The following message appears.

```
INITIALIZATION
TIME SETTING
You can change the white
screen display time.
Standard     20min   ... 20min.

              + 1min:    ▶
              – 1min:    ◀
              ENTER:     ▲
              CHANCEL:   ▼
```

3 **Press the ▶ and ◀ buttons to adjust the time.**
▶: increase by 1 minute
◀: decrease by 1 minute

```
INITIALIZATION
TIME SETTING
You can change the white
screen display time.
Standard     20min   ... 5min.

              + 1min:    ▶
              – 1min:    ◀
              ENTER:     ▲
              CHANCEL:   ▼
```

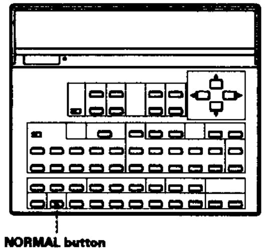
4 **Press the ▲ button.**
To abandon the setting of the warming up time, press the ▼ button.

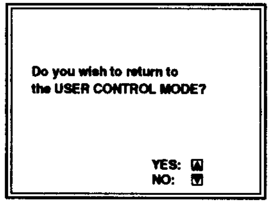
To enable the input video from the connected devices to be displayed immediately when the unit is powered on
Set the time to zero.

Disabling the Servicing Buttons

Normally when you power off the unit, to prevent a user misoperation, the servicing buttons on the Remote Commander are automatically disabled. It is also, however, possible to disable them before powering the unit off.

1 **Hold down the NORMAL button for at least 3 seconds.**





Do you wish to return to
the USER CONTROL MODE?

YES: ▲
NO: ▼

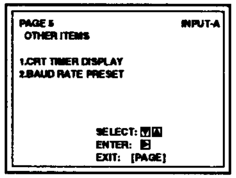
2 **Press the ▲ button (YES).**
This disables the servicing buttons on the Remote Commander.

Status Display Pages

Pressing the PAGE button cycles through the five status display pages.
It is possible to display pages 1, 2, 3 and 5 while a picture is also shown.

PAGE 1 → PAGE 2 → PAGE 3 → PAGE 4 → PAGE 5 → No display → PAGE 1

This section describes the contents of page 5: the other pages are described in detail in the Operating Instructions (*pages 16 to 17*).



PAGE 5 INPUT-A
OTHER ITEMS

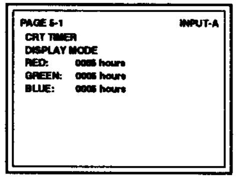
1.CRT TIMER DISPLAY
2.BAUD RATE PRESET

SELECT: ▼▲
ENTER: ▶
EXIT: [PAGE]

From this page you can select either a display of the CRT operating hours, or the Baud rate* setting screen for the RS-422 interface.

* The Baud rate is the data rate of the communications interface. The same rates must be set on this unit and the computer or other equipment connected to the other end of the interface.

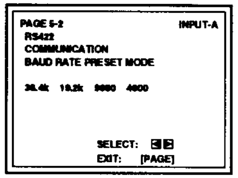
When you select CRT TIMER DISPLAY



PAGE 5-1 INPUT-A
CRT TIMER
DISPLAY MODE
RED: 0005 hours
GREEN: 0005 hours
BLUE: 0005 hours

The operating hours of the three CRTs are shown to the nearest hour, as follows.
RED: Operating hours of the red CRT
GREEN: Operating hours of the green CRT
BLUE: Operating hours of the blue CRT

When you select BAUD RATE PRESET



PAGE 5-2 INPUT-A
RS422
COMMUNICATION
BAUD RATE PRESET MODE

38.4k 19.2k 9600 4800

SELECT: ◀▶
EXIT: [PAGE]

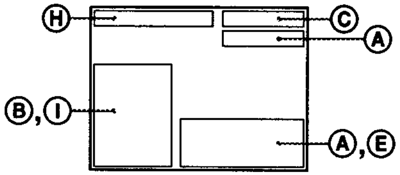
The current setting of the Baud rate flashes in green.
Use the ◀ and ▶ buttons to change the setting.

Note

If using a Sony VPX-010/010M Projector Auto Setup System, select 38.4k.

Messages

Use this list to check the meaning of messages appearing on the screen.
The messages are grouped by their location on the screen: refer to the figure on the right.



Groups Ⓓ, Ⓕ, Ⓖ, Ⓙ and Ⓚ are whole-screen messages, or occur in several places.

Ⓐ Warning messages

Not applicable!	This operation is not applicable in the current context.
Overflow!	An adjustment has reached the end of its range.
PIC MUTING	The video image is blanked.
NO INPUT	There is no input signal.
Input is not VIDEO	The input signal is not a VIDEO signal.
Input is not NTSC	The input signal is not an NTSC signal.
Input is not RGB	The input signal is not an RGB signal.
Input is B & W	The input signal is a monochrome signal.
OFF	The status display is off.

Ⓑ Picture adjustments

CONTR	Contrast
COLOR	Color saturation
BRT	Brightness
SHARP	Sharpness
HUE	Hue adjustment
PIC CONTROL data reset	The picture adjustment settings are reset.

Ⓒ Input channels

INPUT-A	Input from the INPUT A board
INPUT-B	Input from the INPUT B board
INPUT-C	Input from the INPUT C board
INPUT-D	Input from the INPUT D board
SW'ER x-y	Input from optional switcher x-y (x = 1 or 2, y = 1 ... 8)

Ⓓ Status pages (1 to 2)

USER PRESET	User preset
USER CONTROL	User control
SYSTEM PRESET	System preset
INPUT INFO	Input information
PAGE 1	
STATUS ON/OFF	Status display on or off
PIC MUTING ON/OFF	Picture blanking on or off
AUDIO MUTING ON/OFF	Muting on or off
PAGE 2	
CONTR	Contrast
COLOR	Color saturation
BRT	Brightness
SHARP	Sharpness
HUE	Hue adjustment
VOL	Volume
PIC CONTROL data reset	The picture adjustment settings are reset.

Ⓓ Status pages (3 to 5)

PAGE 3	
COLOR TEMPERATURE: 9300/6500/3200/PRESET	The color temperature is 9300 K, 6500 K, 3200 K, or the preset value (which can be changed by service personnel).
CLAMP: AUTO / S on G / H/C / H.P	The clamp setting is automatic, internal, external, or horizontal pulse.
V-SHIFT: WIDE/NARROW	The vertical shift variation range is wide or narrow.
PAGE 4	
INPUT SIGNAL	Input signal
Y/C	S-video input
RGB	RGB video input
B & W	Monochrome input
NTSC	NTSC video input
PAL	PAL video input
SECAM	SECAM video input
fH	Horizontal scan frequency
fV	Vertical scan frequency
Internal oscillation	The internal signal generator is being used.
H/C-SYNC	Horizontal sync or composite sync signal.
V-SYNC	Vertical sync signal.
SYNC ON G	Composite video signal.
H/C-SYNC: POS	H/C-SYNC signal is positive polarity.
H/C-SYNC: NEG	H/C-SYNC signal is negative polarity.
H/C-SYNC: - - -	There is no H/C-SYNC signal input.
V-SYNC: POS	V-SYNC signal is positive polarity.
V-SYNC: NEG	V-SYNC signal is negative polarity.
V-SYNC: - - -	There is no V-SYNC signal input.
SYNC ON G: NEG	SYNC ON G signal is negative polarity.
SYNC ON G: - - -	There is no SYNC ON G signal input.
REGI BLOCK: NO.X	Indicates the number of the memory block holding the current registration settings.
PAGE 5	
1. CRT TIMER DISPLAY	Display CRT operating hours screen.
2. BAUD RATE PRESET	Display RS-422 Baud rate setting screen.
PAGE 5-1	
CRT TIMER DISPLAY MODE	CRT operating hours screen
RED: xxxx HOURS	Operating hours of the red CRT
GREEN: xxxx HOURS	Operating hours of the green CRT
BLUE: xxxx HOURS	Operating hours of the blue CRT
PAGE 5-2	
RS422 COMMUNICATIONS BAUD RATE PRESET MODE 38.4K/19.2K/9600/4800	The Baud rate settings for the RS-422 interface are 38400, 19200, 9600 and 4800 bps.

Ⓔ Operations

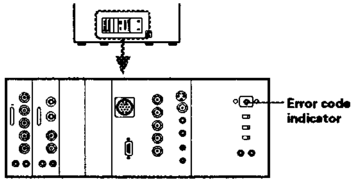
YES: ▲	Press the ▲ button to select "Yes".
NO: ▼	Press the ▼ button to select "No".
SELECT: ◀ ▶	Press the ◀ and ▶ buttons to make the selection.
SELECT: ◀ ▶ ▲ ▼	Press the ◀, ▶, ▲, and ▼ buttons to make the selection.
ADJ: ◀ ▶ ▲ ▼	Press the ◀, ▶, ▲, and ▼ buttons to make the adjustment.
ADJ: ◀ ▶	Press the ◀ or ▶ button to make the adjustment.
ADJ: ▲ ▼	Press the ▲ or ▼ button to make the adjustment.
NEXT: [PAGE]	Press the PAGE button to switch to the next page.
EXIT: [PAGE]	Press the PAGE button to exit from the status page display.

Messages

Ⓕ	**Saving in memory**	
	MEMORY DATA in saving. MEMORY DATA saving is complete! No key may be applicable during the indication of this mode.	Settings are being saved in memory. Settings have been saved in memory. The buttons are all disabled while settings are being saved in memory.
Ⓖ	**Resetting (to preset values)**	
	Do you wish to return to factory preset data? Reset complete! RGB SIZE DATA RESET MODE RGB SHIFT DATA RESET MODE	Confirm resetting to factory default? Reset completed. Resetting image size for RGB input. Resetting image position for RGB input.
Ⓗ	**Adjustments**	
	RGB SIZE ADJ RGB SHIFT ADJ R CENT ADJ B CENT AD	Adjusting image size for RGB input. Adjusting image position for RGB input. Adjusting registration for red image. Adjusting registration for blue image.
Ⓘ	**Adjustment settings**	
	H: xxx V: xxx Hf: xxx Hc: xxx Vf: xxx Vc: xxx	Horizontal adjustment (xxx = 0 to 255) Vertical adjustment (xxx = 0 to 255) Horizontal registration fine adjustment (xxx = 0 to 255). Changes every time you press the arrow button. Horizontal registration coarse adjustment (xxx = 0 to 255). Changes when you hold down the arrow button. Vertical registration fine adjustment (xxx = 0 to 255). Changes every time you press the arrow button. Vertical registration coarse adjustment (xxx = 0 to 255). Changes when you hold down the arrow button.
Ⓙ	**Warning messages**	
	fH is too high! This input signal cannot be projected as the horizontal frequency is too high.	The horizontal frequency of the input signal is too high.
Ⓚ	**Miscellaneous**	
	For optimum performance, white screen will remain for 20 min. For immediate use, push [PAGE] key.	For optimum performance, the screen will remain white for 20 minutes. To use the unit immediately, press the PAGE button.

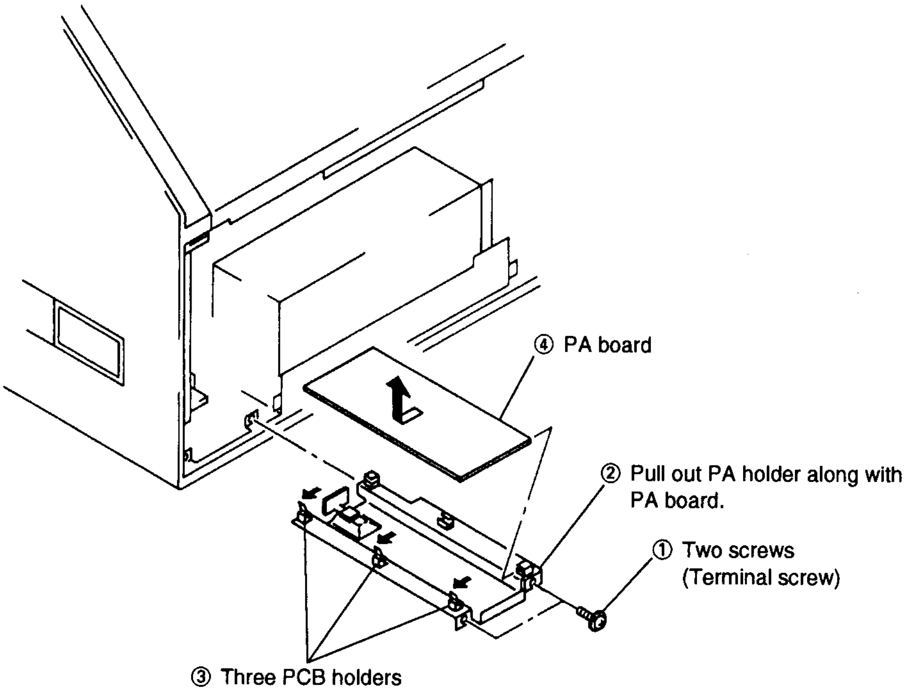
Error Codes

If an operational problem occurs, the unit automatically powers off, and displays an error code on the rear panel. The following table shows the significance of these error codes. Where there is a "Yes" in the table, the corresponding error is indicated by the error code.

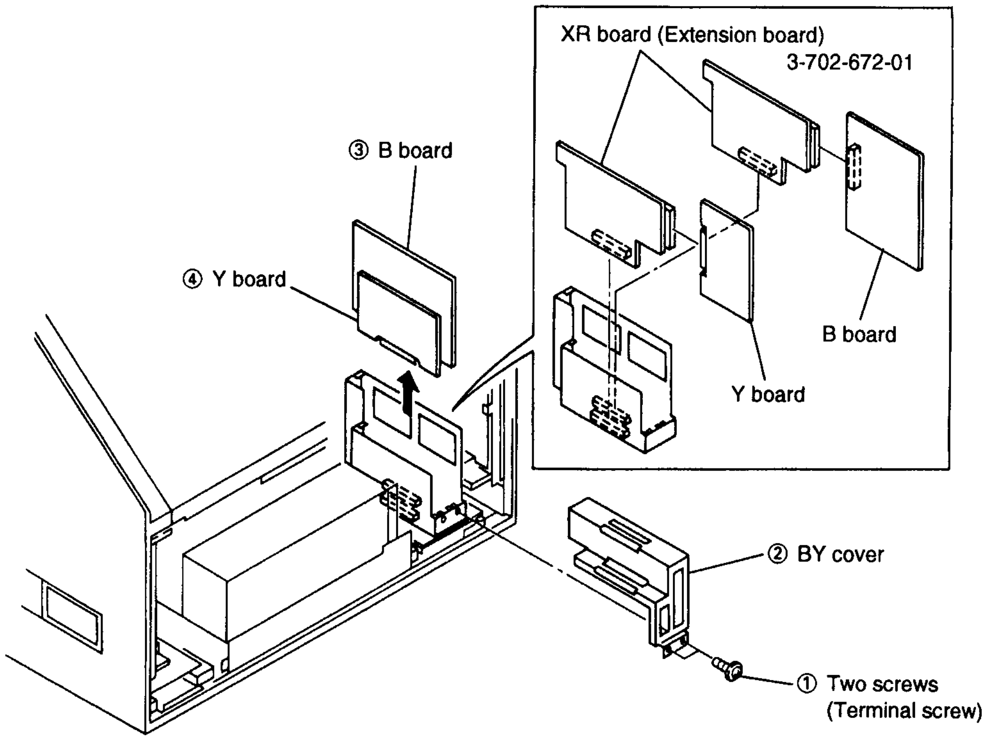


	Error					
Error code	**Fan stopped**	**H stop (160 V down)**	**IK over**	**V stop**	**HV over**	**Power down**
01	Yes					
02		Yes				
03	Yes	Yes				
04			Yes			
05	Yes		Yes			
06		Yes	Yes			
07	Yes	Yes	Yes			
08				Yes		
09	Yes			Yes		
0A		Yes		Yes		
0b	Yes	Yes		Yes		
0c			Yes	Yes		
0d	Yes		Yes	Yes		
0E		Yes	Yes	Yes		
0_	Yes	Yes	Yes	Yes		
10					Yes	
11	Yes				Yes	
12		Yes			Yes	
13	Yes	Yes			Yes	
14			Yes		Yes	
15	Yes		Yes		Yes	
16		Yes	Yes		Yes	
17	Yes	Yes	Yes		Yes	
18				Yes	Yes	
19	Yes			Yes	Yes	
1A		Yes		Yes	Yes	
1b	Yes	Yes		Yes	Yes	
1c			Yes	Yes	Yes	
1d	Yes		Yes	Yes	Yes	
1E		Yes	Yes	Yes	Yes	
1_	Yes	Yes	Yes	Yes	Yes	
20						Yes

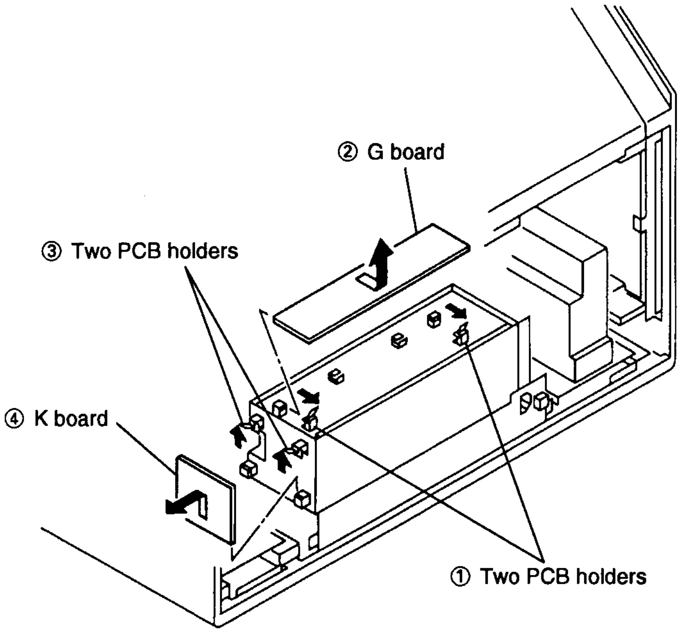
2-5. PA BOARD REMOVAL


④ PA board
② Pull out PA holder along with PA board.
① Two screws (Terminal screw)
③ Three PCB holders

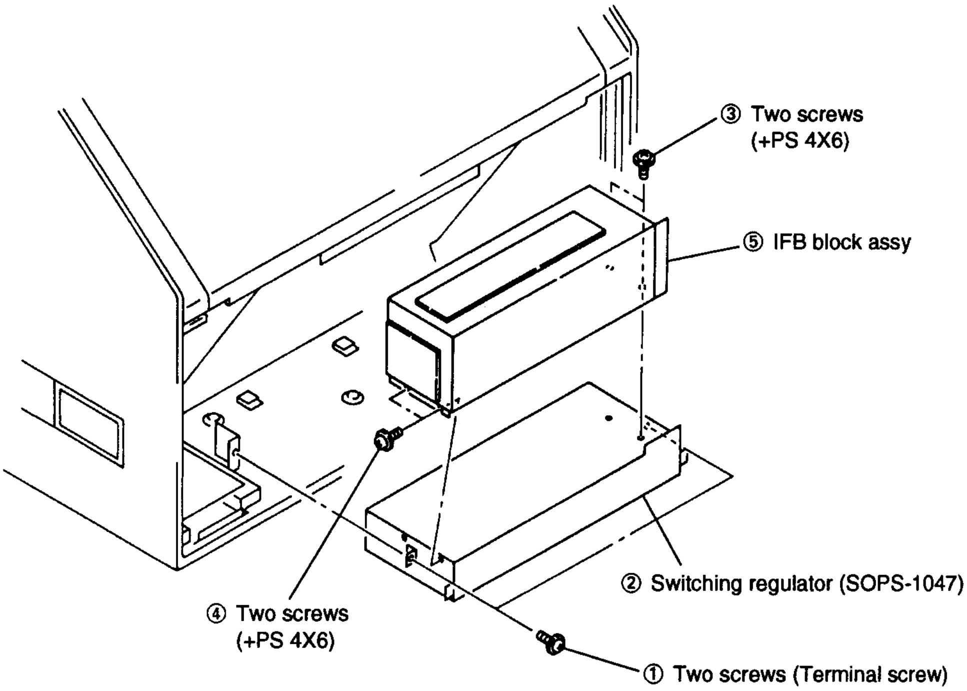
2-6. B AND Y BOARDS AND EXTENSION BOARD CONNECTION


XR board (Extension board)
3-702-672-01
B board
Y board
③ B board
④ Y board
② BY cover
① Two screws (Terminal screw)

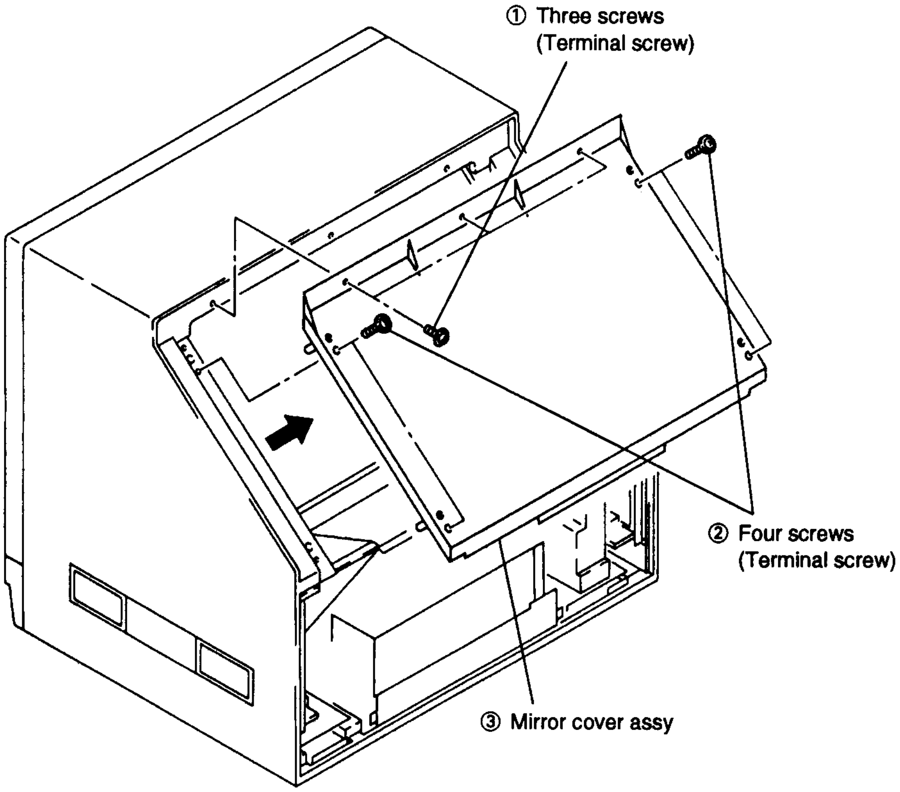
2-7. G AND K BOARDS REMOVAL


② G board
③ Two PCB holders
④ K board
① Two PCB holders

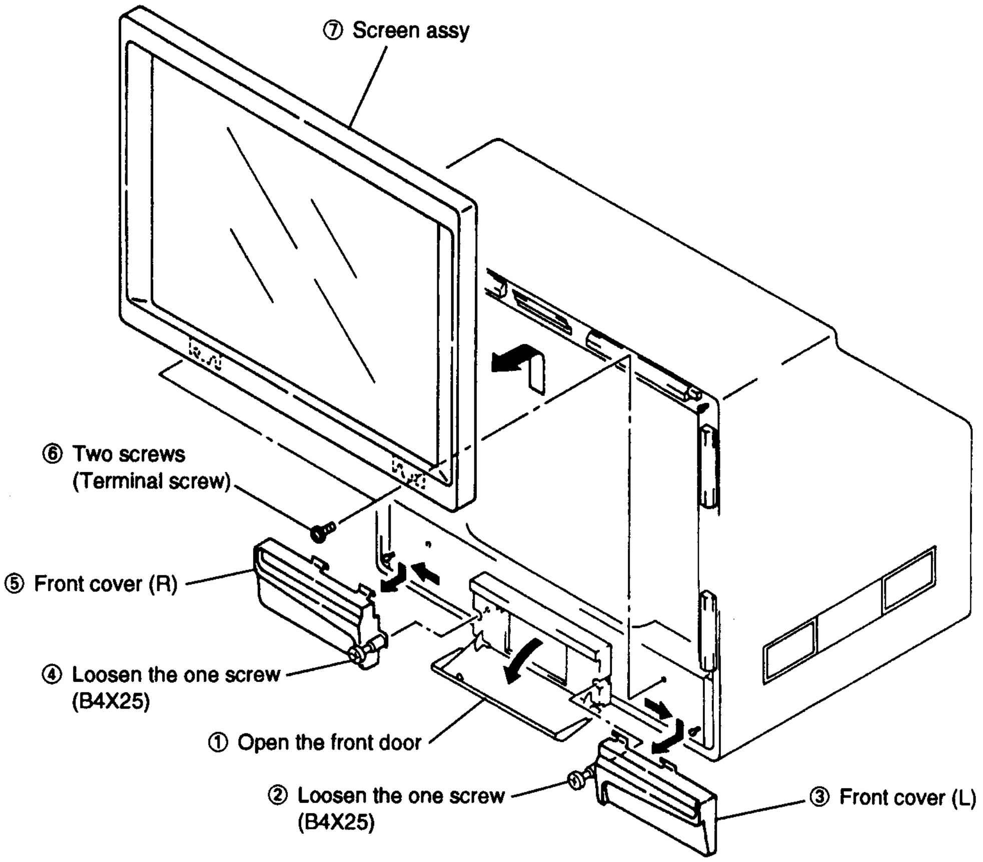
2-8. SWITCHING REGULATOR (SOPS-1074) REMOVAL


③ Two screws
(+PS 4X6)
⑤ IFB block assy
② Switching regulator (SOPS-1047)
④ Two screws
(+PS 4X6)
① Two screws (Terminal screw)

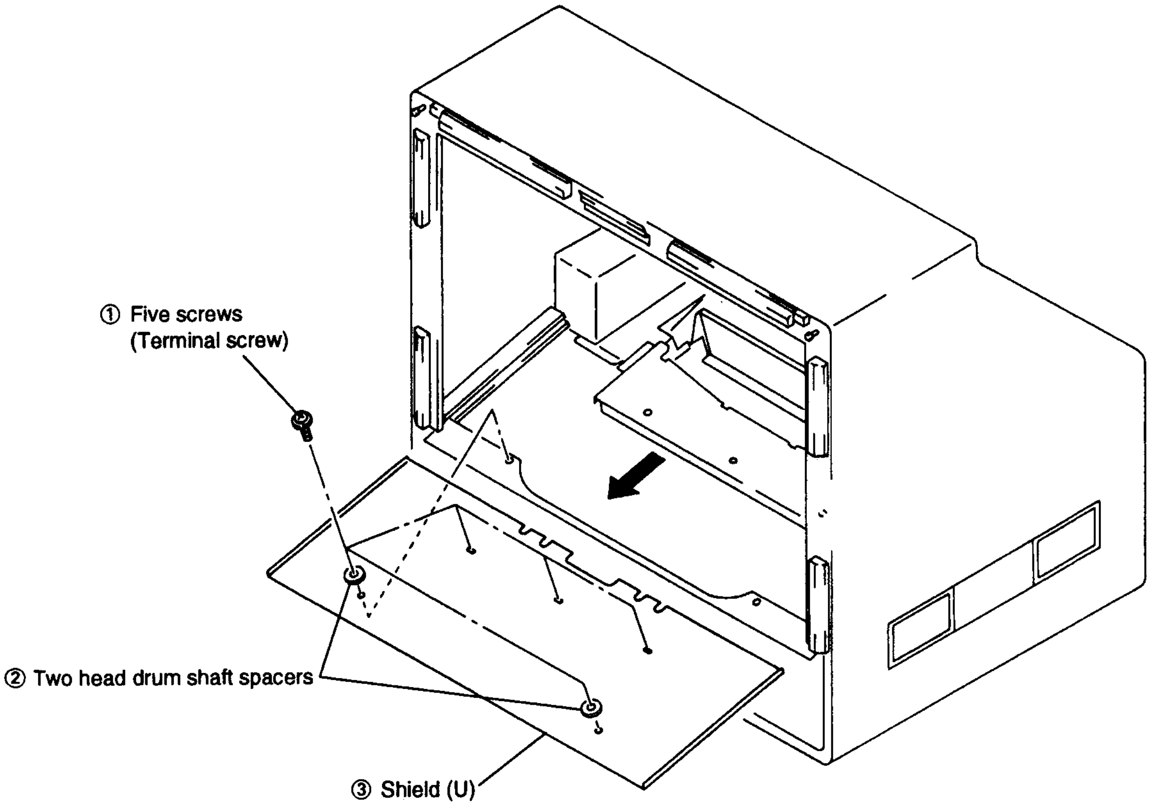
2-9. MIRROR COVER ASSY REMOVAL


① Three screws
(Terminal screw)
② Four screws
(Terminal screw)
③ Mirror cover assy

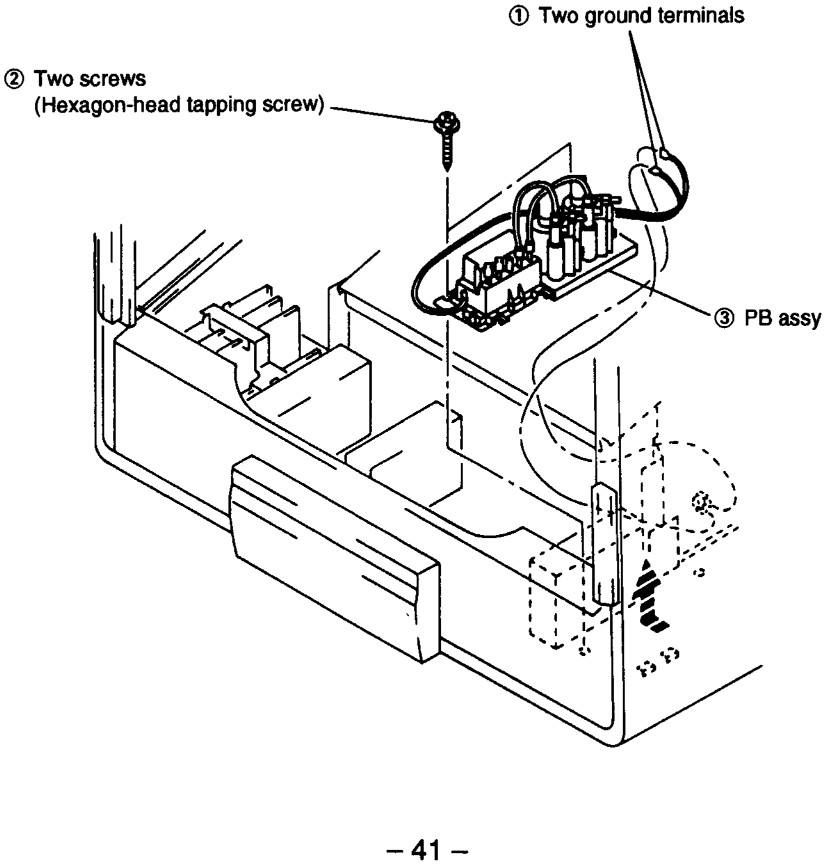
2-10. SCREEN ASSY REMOVAL


⑦ Screen assy
⑥ Two screws
(Terminal screw)
⑤ Front cover (R)
④ Loosen the one screw
(B4X25)
① Open the front door
② Loosen the one screw
(B4X25)
③ Front cover (L)

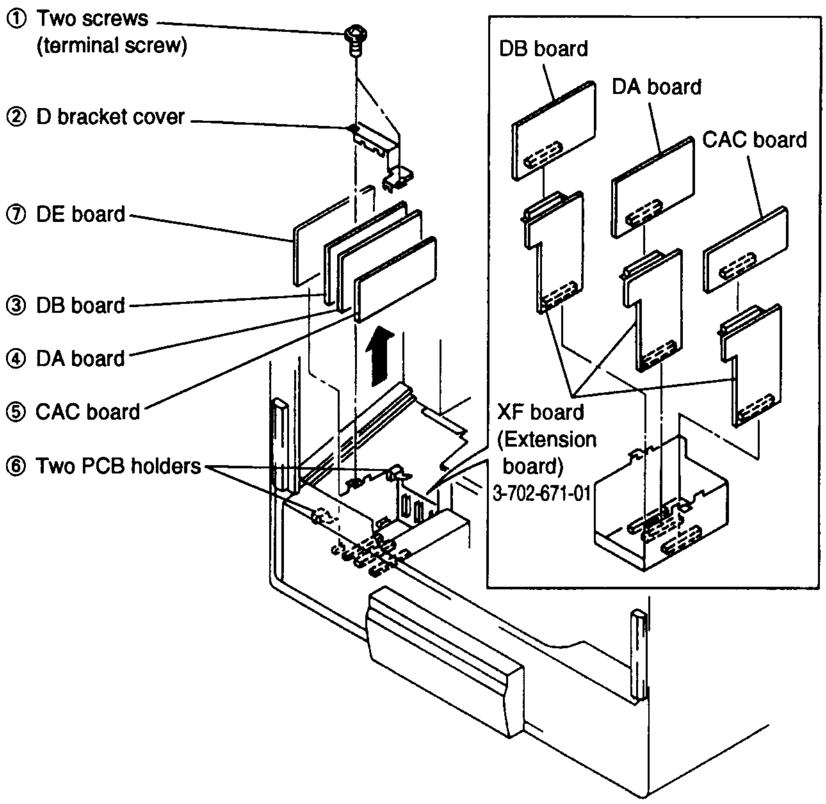
2-11. SHIELD (U) REMOVAL


① Five screws
(Terminal screw)
② Two head drum shaft spacers
③ Shield (U)

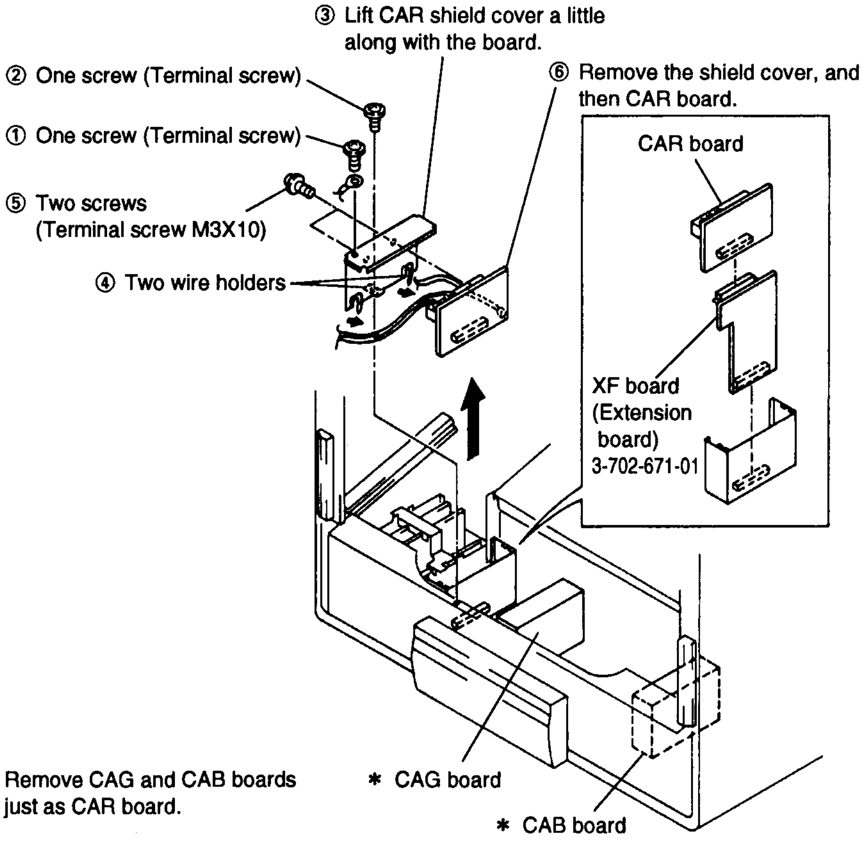
2-12. PB ASSY REMOVAL


① Two ground terminals
② Two screws
(Hexagon-head tapping screw)
③ PB assy

2-13. DA, DB, DE AND CAC BOARDS REMOVAL AND EXTENSION BOARD CONNECTION


① Two screws (terminal screw)
② D bracket cover
⑦ DE board
③ DB board
④ DA board
⑤ CAC board
⑥ Two PCB holders
DB board
DA board
CAC board
XF board (Extension board) 3-702-671-01

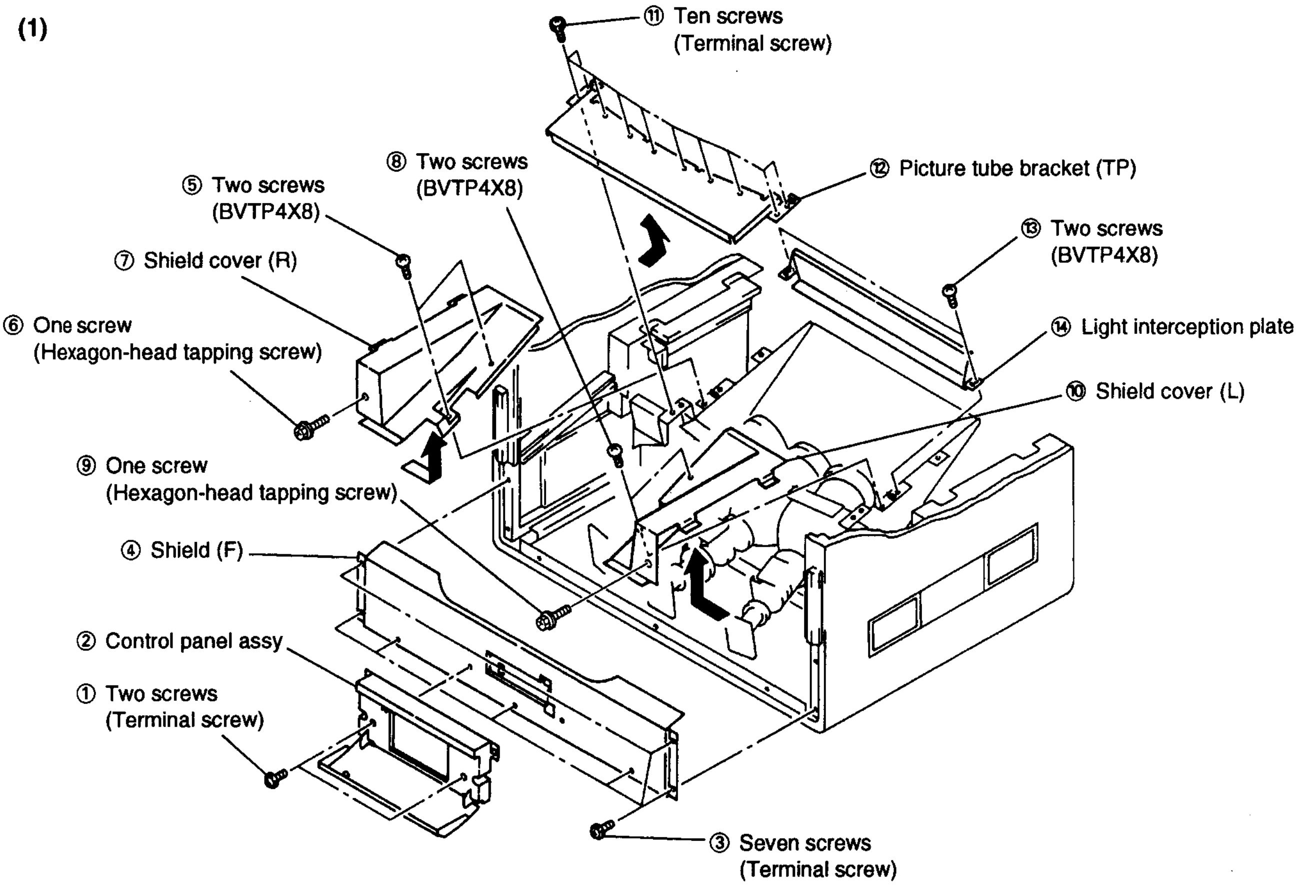
2-14. CAR, CAG AND CAB BOARDS REMOVAL AND EXTENSION BOARD CONNECTION


③ Lift CAR shield cover a little along with the board.
② One screw (Terminal screw)
⑥ Remove the shield cover, and then CAR board.
① One screw (Terminal screw)
CAR board
⑤ Two screws (Terminal screw M3X10)
④ Two wire holders
XF board (Extension board) 3-702-671-01
∗ CAG board
∗ CAB board

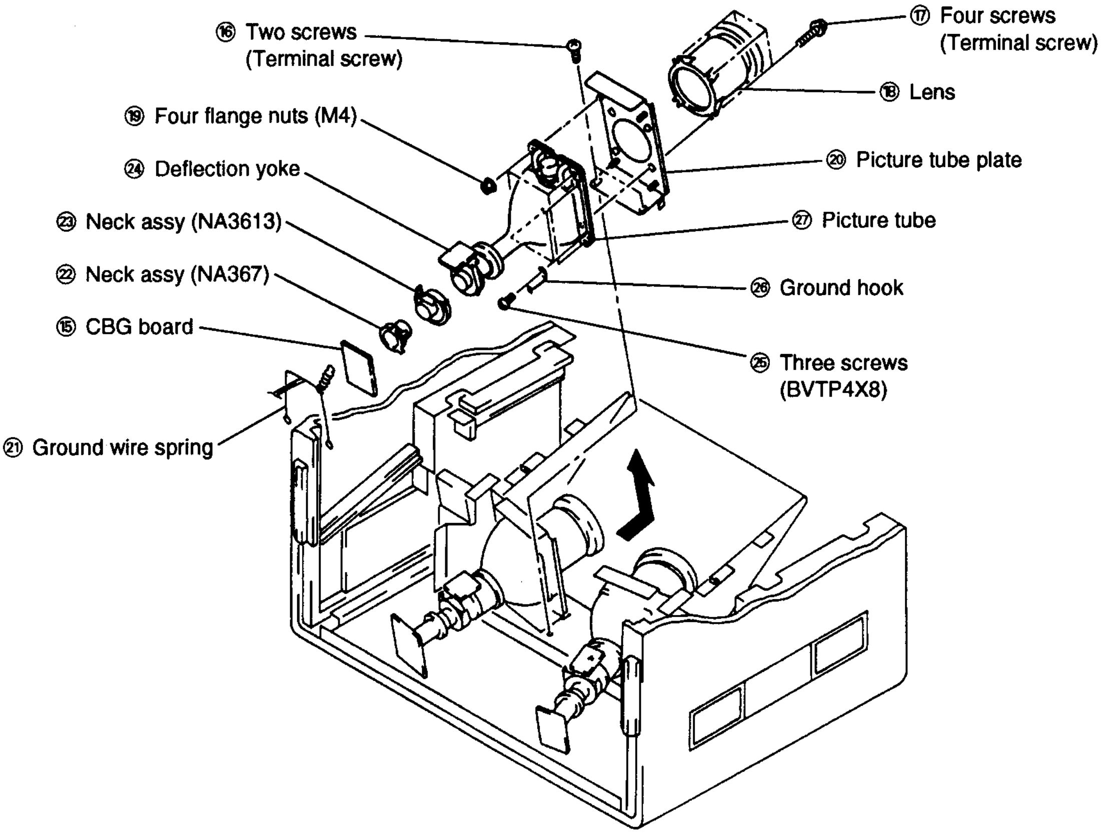
∗ Remove CAG and CAB boards just as CAR board.

2-15. PICTURE TUBE REMOVAL

(1)

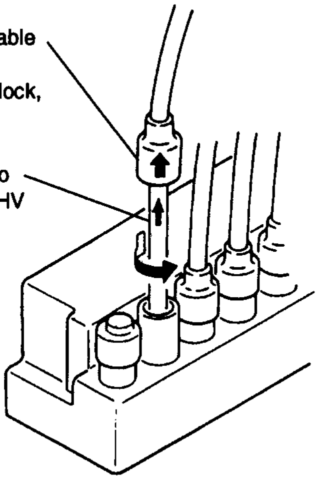

⑪ Ten screws (Terminal screw)
⑧ Two screws (BVTP4X8)
⑤ Two screws (BVTP4X8)
⑫ Picture tube bracket (TP)
⑬ Two screws (BVTP4X8)
⑦ Shield cover (R)
⑥ One screw (Hexagon-head tapping screw)
⑭ Light interception plate
⑩ Shield cover (L)
⑨ One screw (Hexagon-head tapping screw)
④ Shield (F)
② Control panel assy
① Two screws (Terminal screw)
③ Seven screws (Terminal screw)

(2)

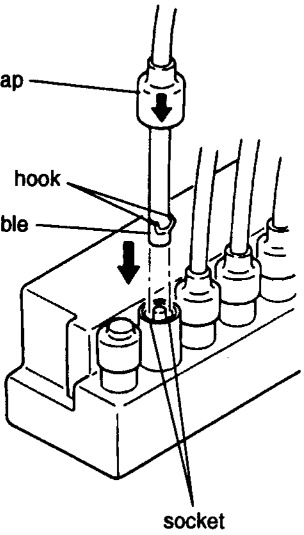

⑯ Two screws (Terminal screw)
⑰ Four screws (Terminal screw)
⑱ Lens
⑲ Four flange nuts (M4)
⑳ Picture tube plate
㉔ Deflection yoke
㉗ Picture tube
㉓ Neck assy (NA3613)
㉖ Ground hook
㉒ Neck assy (NA367)
⑮ CBG board
㉕ Three screws (BVTP4X8)
㉑ Ground wire spring

2-16. HIGH-VOLTAGE CABLE REMOVAL

(1) Disconnection


① While pushing in HV cable rubber cap that is connected to the HV block, turn it 90 degree.
② Pull out the HV cable to disconnect it from the HV block

(2) Connector


② Put the rubber cap
hook
① Insert the HV cable into the socket.
socket

SECTION 3
TROUBLE SHOOTING

3-1. SELF-DIAGNOSTICS (TROUBLESHOOTING)

3-1-1. Self-diagnostics

This projector is equipped with a LED display on KB board to permit smooth analysis of failure.

Display on LED is in hexadecimal, and Table 3-1. shows relationship between display codes and failure modes.
"01", "02", "04", "08", "10" and "20" indicate independent failure mode, respectively. Other codes are combinations of these independent failure modes.

1. Contents of failure modes

(a) "01" - FAN STOP
At least one of 9 FANs (two for power supplies) used in this projector failed: Failure may exists in FAN itself, or disconnection of a FAN connector.

NOTE :
FAN STOP PROTECTOR does not attach to the small micro-FAN on DC board.

(b) "02" - H STOP (100V down)
H deflection stops because of failure on E board or on other boards: Failure may exists in damaged Hout transistor (Q7 on E board).
Voltage building-up on +100V line is unsuccessful because of damaged transistor (Q1) on PC board.

(c) "04" - ΣIk OVER
Abnormal (excessive) current in CRT: The PROTECTOR is activated at about 4.7mA or more of total cathode current. Failure may exist in failed Video OUT transistors (IC101, IC201, IC301) on CAR/CAG/CAB boards, damaged CRT, damaged FBT, or too-high setting of G2 (SCREEN) potentiometer.

(d) "08" - V STOP
V deflection stops because of failure on DC board or other boards (DA or DB, for example) :
Failure may exist in damaged Vout ICs (IC4, IC6, IC8) on DC board, etc.
Overload to ±15V lines on DC board: Failure may exist in damaged Sub-deflection circuit on DC board, or in over correction to registration (∗1).

∗1 : If installation of the projector system is incorrect against projector's optical system, and if you perform adjustments of registration forcibly, then overload to ±15V lines may occur.

(e) "10" - HV OVER
High-voltage (HV) becomes excessive: PROTECTOR is activated at HV = 34kV (±0.3kV). Failure may exist damaged CRT, or damaged HV regulator circuit on PA board.

(f) "20" - POWER DOWN
POWER is turned OFF without control from the commander: Overload to power supply may cause PROTECTOR in power supply to be activated.

NOTE :
If PROTECTOR in power supply is activated, and POWER to the projector is turned OFF, POWER CONT. line in the projector (POWER ON at High (5V), and POWER OFF at Low (0 V)) remains High state (5V). To turn POWER to the projector ON again, press Power Off key on the commander to pull down POWER CONT. line to Low (0 V) state. Then press Power ON key on the commander.

(g) Failure Display

Contents Code	FAN stop	H stop (100V down)	IK over	V stop	HV over	power down
01....	*	—	—	—	—	—
02....	—	*	—	—	—	—
03....	*	*	—	—	—	—
04....	—	—	*	—	—	—
05....	*	—	*	—	—	—
06....	—	*	*	—	—	—
07....	*	*	*	—	—	—
08....	—	—	—	*	—	—
09....	*	—	—	*	—	—
0A....	—	*	—	*	—	—
0b....	*	*	—	*	—	—
0C....	—	—	*	*	—	—
0d....	*	—	*	*	—	—
0E....	—	*	*	*	—	—
0_....	*	*	*	*	—	—
10....	—	—	—	—	*	—
11....	*	—	—	—	*	—
12....	—	*	—	—	*	—
13....	*	*	—	—	*	—
14....	—	—	*	—	*	—
15....	*	—	*	—	*	—
16....	—	*	*	—	*	—
17....	*	*	*	—	*	—
18....	—	—	—	*	*	—
19....	*	—	—	*	*	—
1A....	—	*	—	*	*	—
1b....	*	*	—	*	*	—
AC....	—	—	*	*	*	—
1d....	*	—	*	*	*	—
1E....	—	*	*	*	*	—
1_....	*	*	*	*	*	—
20....	—	—	—	—	—	*

Table. 3-1

2. RS422 communication error code

If errors occur in RS422 communication, display different from that of failure modes appears. Display codes and their contents are as follows:

A0 : Receive time out error

Too long time interval between received Bytes: (Transmit/Receive data of RS422 requires 3 Bytes per instruction. Error occurs if time interval between Bytes of received data is too long.)

A1 : Handshake error

Discrepancy exists in timing of data transfer with MASTER side.

A2 to AF : Combination of following modes

Table 3-2. shows relationship between codes and combination modes.

Over Run Error

Next data arrives before completion of reading current data.

Parity Error

Parity (odd/even) bit error.

Framing Error

No stop bit is detected.

	Over Run Error	Parity Error	Framing Error
A2	—	—	*
A4	—	*	—
A6	—	*	*
A8	*	—	—
AA	*	—	*
AC	*	*	—
AE	*	*	*

- Software for normal operation is not affected while error codes are displayed.
- Error codes are turned OFF if normal communication is done next time.

3-1-2. Power ON/OFF and Protector Line

1. Power ON/OFF

Power ON/OFF control from the remote commander is done by "POWER CONT." line be pulled-up (High) or pulled-down (Low) (refer to 16-2. Power cont and prot line diagram).

Power CONT. → { High (≒ 5V) → Power ON
Low (≒ 0V) →Power OFF

When the remote commander outputs SIRCS code of "POWER ON", the code passes a signal route shown in Fig. 3-1, then enters to IC9 on Y board. The IC decodes the SIRCS code, and pulls pin ㉘ (Power) down to Low (=0V). Low state on pin ㉘ turns Q3 ON, and "POWER CONT." line becomes High. This turns Q251 ON, and POWER to the projector is turned ON (refer to Fig. 3-2).
Sequence of Power Off is the one completely reversal to that of Power On.

In addition to control from the remote commander, Power off operation is enabled if something wrong occurs in the projector (refer to Fig. 3-2).
PA board, CAC board, B boards, and IFB board contain transistors to pull down "POWER CONT." line Low forcibly. If something wrong occurs, these transistors are turned ON to pull down "POWER CONT." line, and the projector is turned OFF.

Board	Ref.	
PA board	Q15	Turns ON when protector is activated.
CAC board	Q407, 409	Turn ON when voltage building-up on ±12V power lines is unsuccessful.
B board	Q404, 405	
IFB board	—	

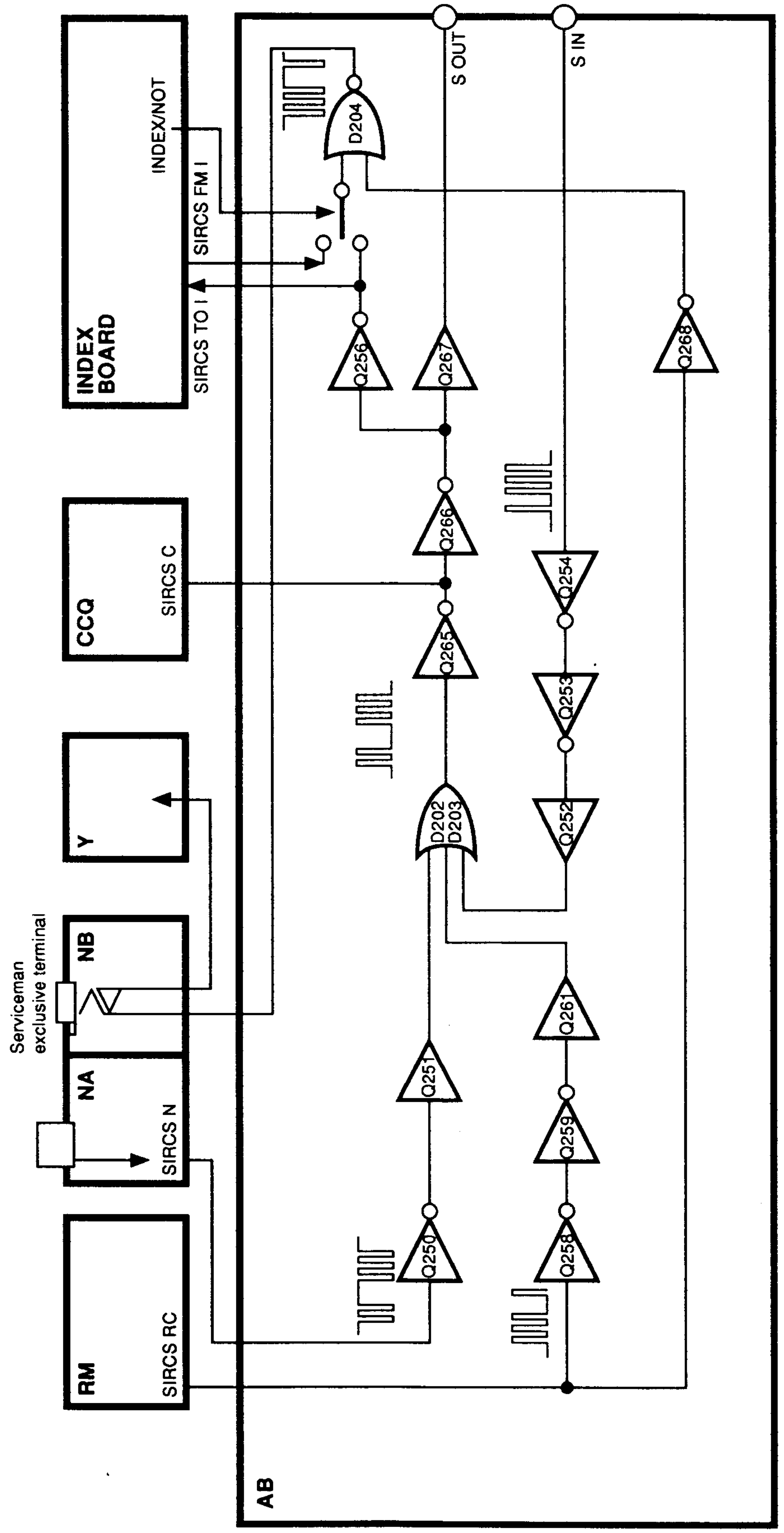


Fig. 3-1 SIRCS line diagram

2. Protector line

There are five protector lines as shown below, and they are in 1-by-1 correspondence with failure modes:

1. FAN STOP line
2. H STOP (100V down) line
3. Σ Ik OVER line
4. V STOP line
5. HV OVER line

Signal polarity on each protector line is normally Low (≒0V) except FAN STOP line which is normally High (≒5V).

	normal state	abnormal state
1. FAN STOP	High	Low
2. H STO (P100V down)	Low	High
3. Σ IK OVER	Low	high
4. V STOP	Low	High
5. HV OVER	Low	High

Signal levels on these lines are all entered to PA board and Y board. Signals entered to PA board are ORed (＊1) to turn Q15 ON, and turns the projector OFF. Y board monitors abnormal state on signal levels, and sends data to L board to display failure modes.

＊1 : Signals are ORed by D24, 25, 28 and 29 on PA board. But signal polarity on FAN STOP line is reversal to other lines. So, Q17 inverts the signal on FAN STOP line before the signal is mixed.

Here is description when H. STOP protector is activated, as an example.

If some failure occurs in E board, and H deflection stops, then Q115 on E board is turned OFF, and H. STOP line is pulled up to High (≒5V). Y board detects the High state on H. STOP line, and sends data to KB board to display "02" on LEDs of KB board. On the other hand, D24 and Q16 become High, and Q15 is turned ON. This forcibly pulls down "POWER CONT." line to Low, and the projector is turned OFF.

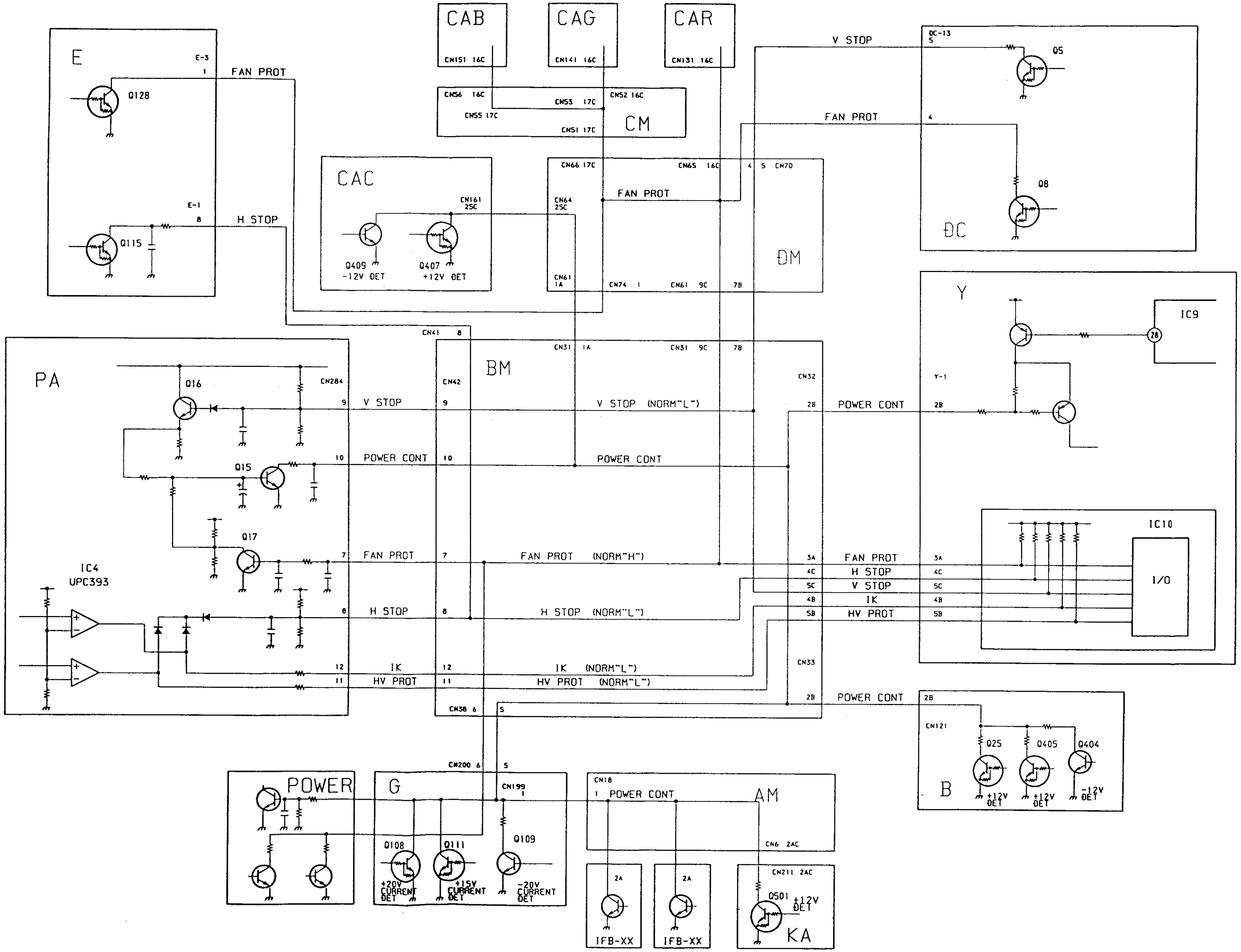
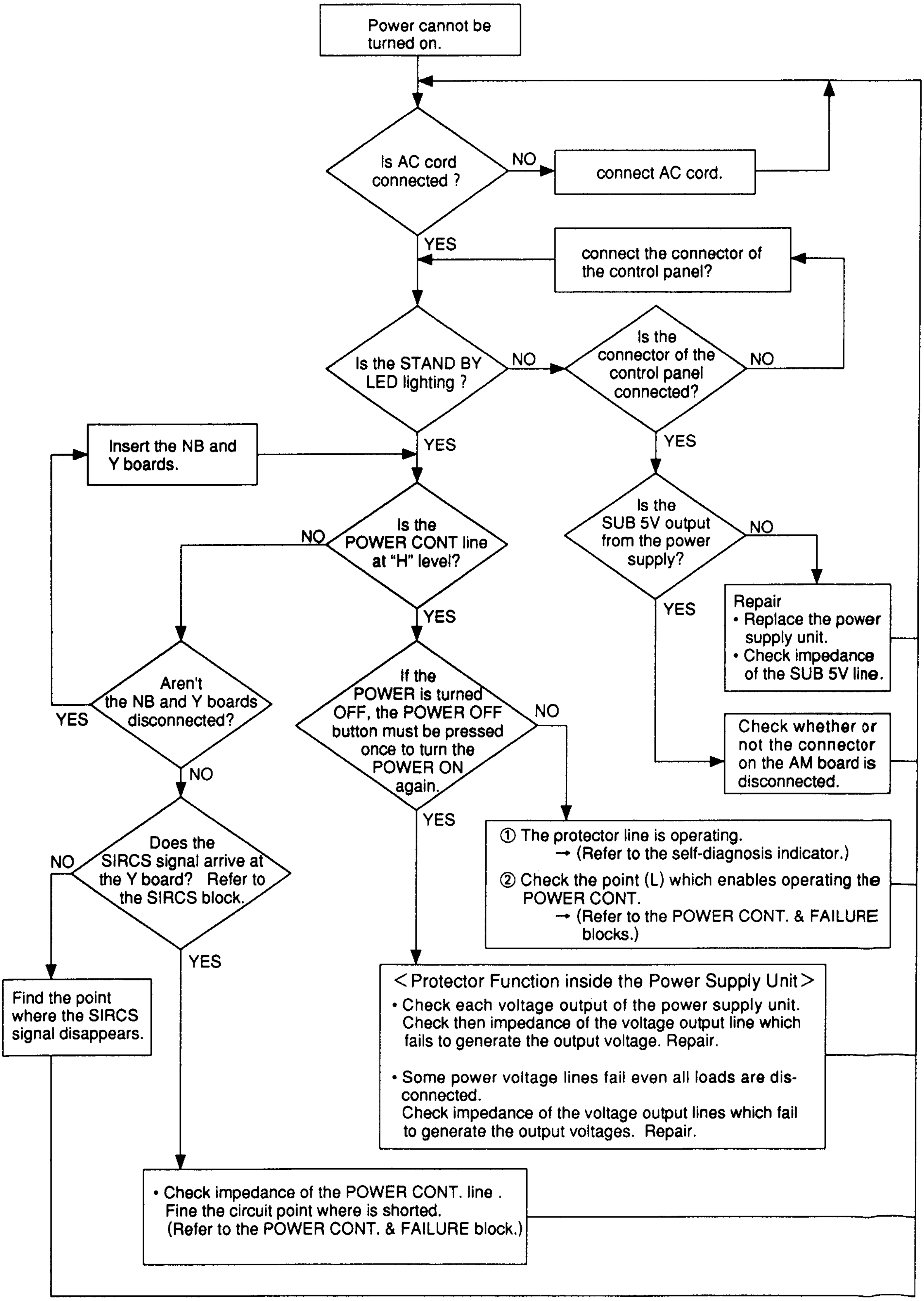

E
Q128
Q115
E-3 1
E-1 8
FAN PROT
H STOP
CAB
CAG
CAR
CN151 16C
CN141 16C
CN131 16C
CM
CN56 16C
CN53 17C
CN52 16C
CN55 17C
CN51 17C
CAC
CN161 25C
Q409 -12V DET
Q407 +12V DET
DM
CN66 17C
CN65 16C
CN70
CN64 25C
CN61 1A
CN74 1
CN61 9C
7B
V STOP
DC-13 5
Q5
Q8
DC
Y
Y-1
IC9
IC10
I/O
PA
Q16
Q15
Q17
IC4 UPC393
CN284
BM
CN41 8
CN42
CN31 1A
CN31 9C
CN32
CN33
CN38 6
V STOP (NORM"L")
POWER CONT
FAN PROT (NORM"H")
H STOP (NORM"L")
IK (NORM"L")
HV PROT (NORM"L")
IK
HV PROT
FAN PROT
H STOP
V STOP
3A
4C
5C
4B
5B
2B
POWER
G
CN199
CN200 6
Q108 +20V CURRENT DET
Q111 +15V CURRENT DET
Q109 -20V CURRENT DET
AM
CN18 1 POWER CONT
CN6 2AC
2A
IFB-XX
CN211 2AC
Q501 +12V DET
KA
B
CN121
Q25 +12V DET
Q405 +12V DET
Q404 -12V DET

Fig. 3-2 Power cont and prot line diagram

Flow Chart When the Power Cannot be Turned On


Power cannot be turned on.
Is AC cord connected ?
NO
connect AC cord.
YES
connect the connector of the control panel?
Is the STAND BY LED lighting ?
NO
Is the connector of the control panel connected?
NO
YES
Insert the NB and Y boards.
YES
Is the POWER CONT line at "H" level?
NO
Is the SUB 5V output from the power supply?
NO
YES
Repair
• Replace the power supply unit.
• Check impedance of the SUB 5V line.
YES
Aren't the NB and Y boards disconnected?
YES
If the POWER is turned OFF, the POWER OFF button must be pressed once to turn the POWER ON again.
NO
Check whether or not the connector on the AM board is disconnected.
NO
YES
① The protector line is operating.
→ (Refer to the self-diagnosis indicator.)
② Check the point (L) which enables operating the POWER CONT.
→ (Refer to the POWER CONT. & FAILURE blocks.)
Does the SIRCS signal arrive at the Y board? Refer to the SIRCS block.
NO
YES
Find the point where the SIRCS signal disappears.
<Protector Function inside the Power Supply Unit>
• Check each voltage output of the power supply unit. Check then impedance of the voltage output line which fails to generate the output voltage. Repair.
• Some power voltage lines fail even all loads are disconnected.
Check impedance of the voltage output lines which fail to generate the output voltages. Repair.
• Check impedance of the POWER CONT. line . Fine the circuit point where is shorted.
(Refer to the POWER CONT. & FAILURE block.)

3-2. DE BOARD (OPERATION)

The DE board functions are grouped into the following blocks:

(1) Registration zone correction waveform generator block
(2) DAC block
(3) DAC control block

Various waveforms which are necessary for registration zone adjustment are generated from the parabola and sine waveforms supplied from DA board, using multiplier.

The various waveforms which are thus generated are input to the D/A converter where their output amplitudes are controlled using electronic volume control function. The output signals from the D/A converter are added in unit of R, G, B colors and in unit of respective functions. The address signals are buffered and output. The D/A converter is controlled by the serial data (SD), clock (CLK) and LD which are generated by the DB board. Each D/A converter IC is selected by the upper 5 bits among the parallel 8 bits which are supplied from the Y board.

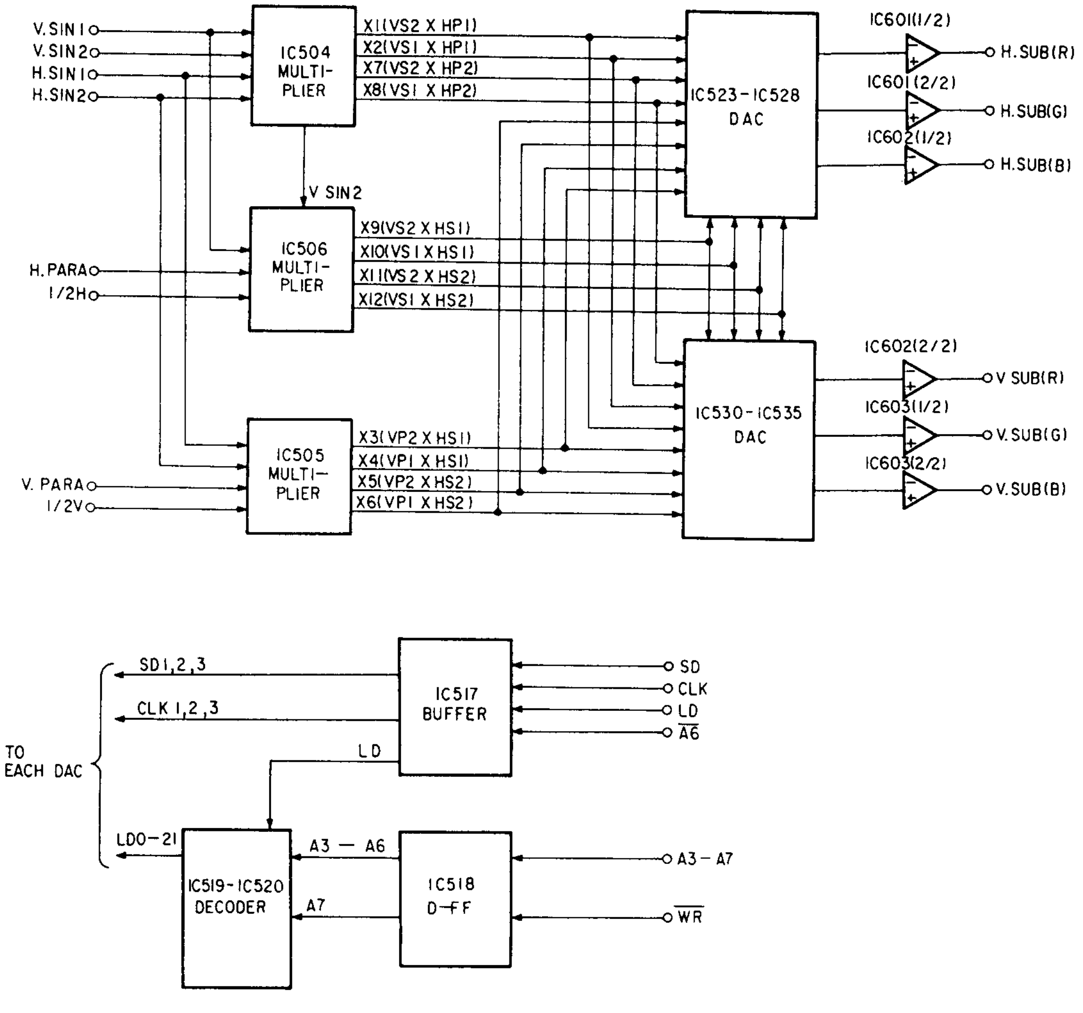

V.SIN1
V.SIN2
H.SIN1
H.SIN2
IC504 MULTI-PLIER
X1(VS2 X HP1)
X2(VS1 X HP1)
X7(VS2 X HP2)
X8(VS1 X HP2)
V SIN2
IC506 MULTI-PLIER
X9(VS2 X HS1)
X10(VS1 X HS1)
X11(VS2 X HS2)
X12(VS1 X HS2)
H.PARA
1/2H
IC505 MULTI-PLIER
X3(VP2 X HS1)
X4(VP1 X HS1)
X5(VP2 X HS2)
X6(VP1 X HS2)
V. PARA
1/2V
IC523-IC528 DAC
IC530-IC535 DAC
IC601(1/2)
IC601(2/2)
IC602(1/2)
IC602(2/2)
IC603(1/2)
IC603(2/2)
H.SUB(R)
H.SUB(G)
H.SUB(B)
V SUB(R)
V.SUB(G)
V.SUB(B)
SD1,2,3
CLK 1,2,3
TO EACH DAC
LD
LD0-21
IC517 BUFFER
SD
CLK
LD
$\overline{A6}$
A3 — A6
A7
IC519-IC520 DECODER
IC518 D-FF
A3 - A7
$\overline{WR}$

Fig. 3-4

3-2-1. Registration Zone Correction Waveform Generator Block

The zones from number 10 to 21 among the 21 division zones for registration are controlled by DE board. (Fig. 3-5)

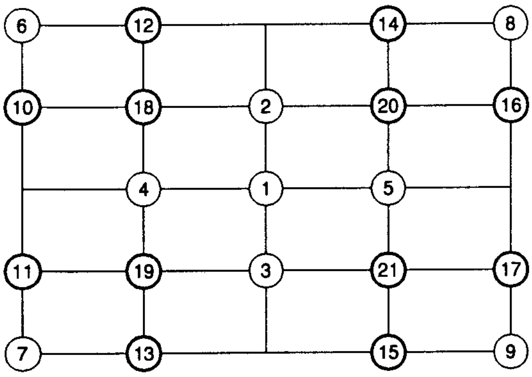

6
12
14
8
10
18
2
20
16
4
1
5
11
19
3
21
17
7
13
15
9

Fig. 3-5

The 12 types of correction waveforms which are necessary for registration adjustment are generated by the multiplier (IC504 to IC506 using the input signal from the D/A board via DB board. Type CXA1726AM IC is used as multiplier which is of same type as used in the DA board. The input waveforms from the DA board and output waveform from multiplier are shown as follows. The V. PARA, V. SIN1 and V. SIN2 waveforms can be adjusted of their offset adjustment with RV702, RV701 and RV703. Since the V. SIN2 signal is negative polarity, it is inverted by an operational amplifier which is built-in IC506 and input to multiplier. Outputs from multiplier are sent to DAC where their amplitudes are adjusted, then added by the horizontal and vertical components of each color and output from the DE board.

Input waveforms

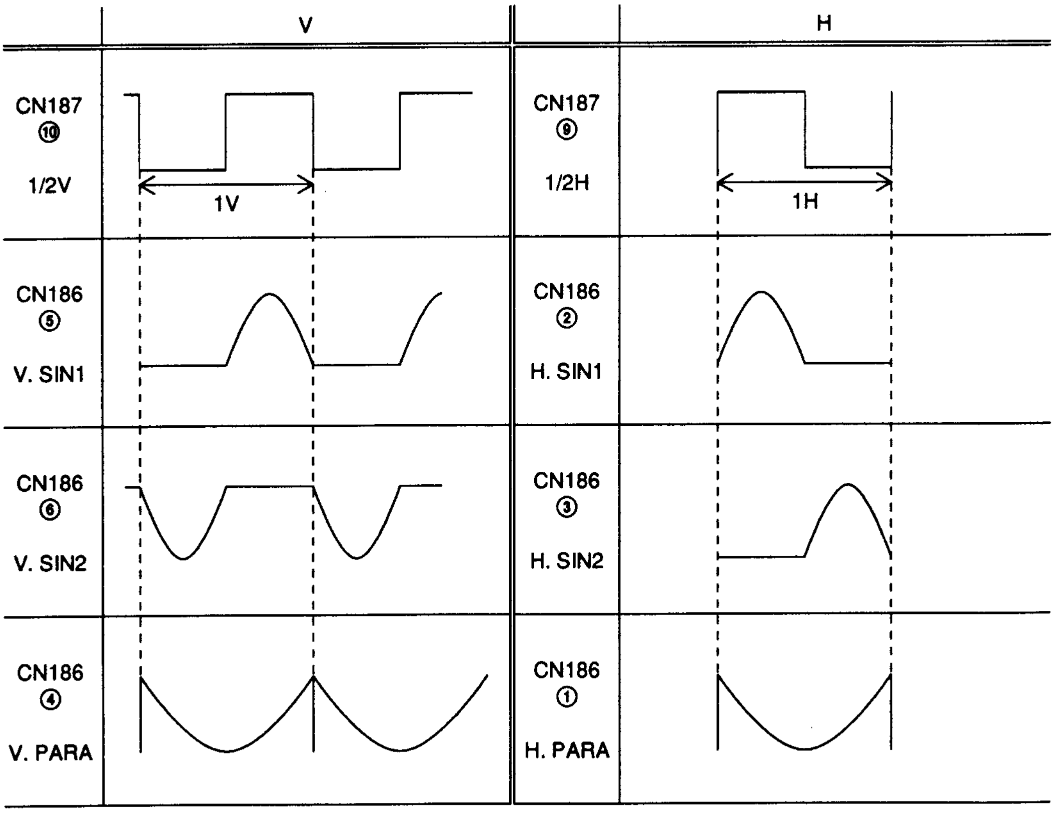

V
H
CN187
⑩
1/2V
1V
CN187
⑨
1/2H
1H
CN186
⑤
V. SIN1
CN186
②
H. SIN1
CN186
⑥
V. SIN2
CN186
③
H. SIN2
CN186
④
V. PARA
CN186
①
H. PARA

Fig. 3-6-1

Output waveforms

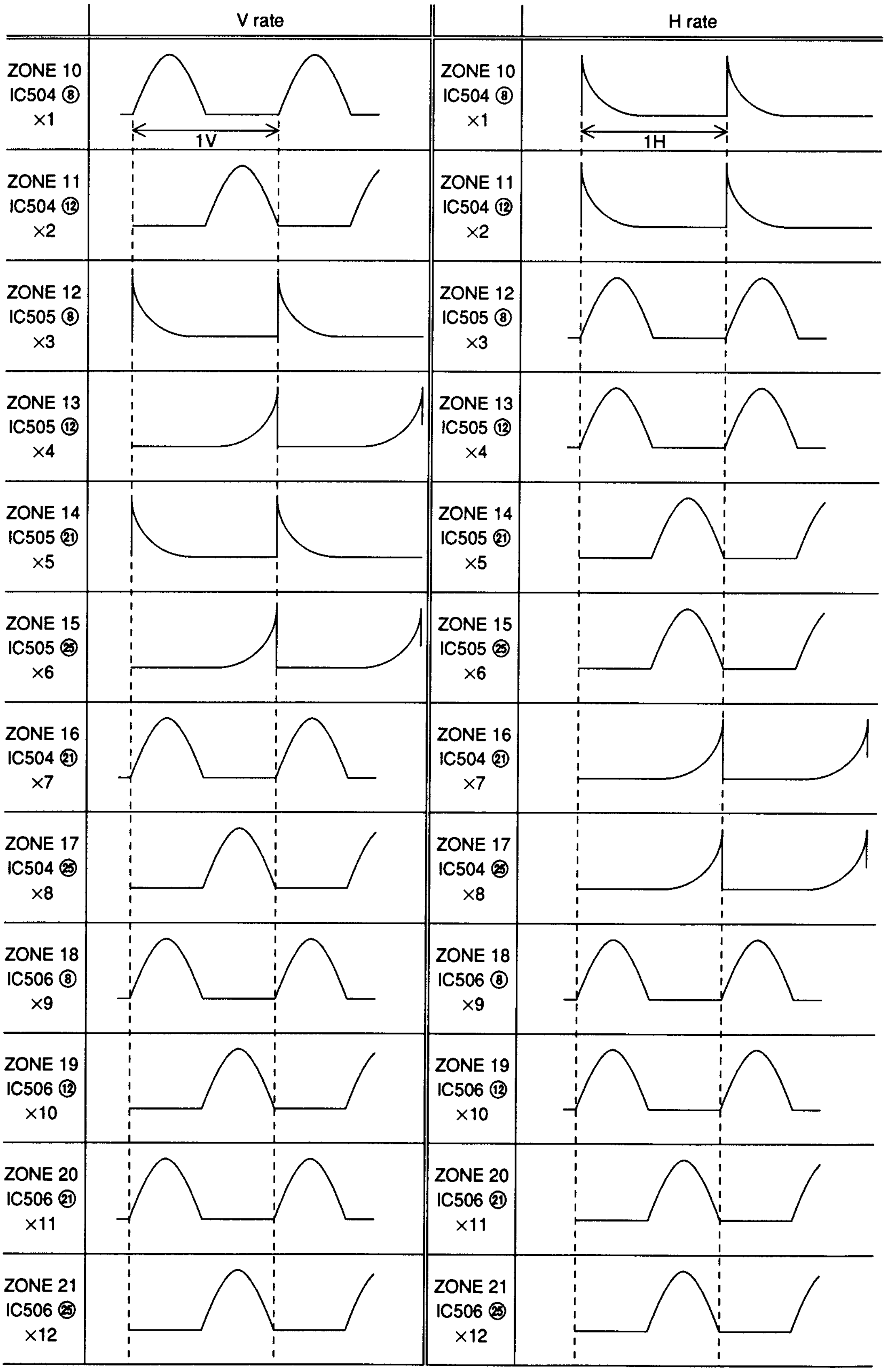

V rate
H rate
ZONE 10
IC504 ⑧
×1
1V
1H
ZONE 11
IC504 ⑫
×2
ZONE 12
IC505 ⑧
×3
ZONE 13
IC505 ⑫
×4
ZONE 14
IC505 ㉑
×5
ZONE 15
IC505 ㉕
×6
ZONE 16
IC504 ㉑
×7
ZONE 17
IC504 ㉕
×8
ZONE 18
IC506 ⑧
×9
ZONE 19
IC506 ⑫
×10
ZONE 20
IC506 ㉑
×11
ZONE 21
IC506 ㉕
×12

Fig. 3-6-2

3-2-2. DAC Block

The D/A converter is used to change amplitude of the various waveforms such as registration correction waveforms. In other word, the D/A converter functions as so called EVR (Electronic Volume Control).

Type DAC8840FSR is the IC which is controlled by three-wire serial bus: SD, CLK and LD. Among the three-wire serial bus, the SD and CLK signals which are generated in the DB board are used as they are.

The output signals from the D/A converter are mixed and amplified in units of function and color by operational amplifiers, and are output from the DE board.

3-2-3. DAC Control Block

The SD and CLK signals which are input from the DB board, are buffered by IC517 then distributed to the respective D/A converter ICs. However, if the LD signal which is input from the DB board is distributed to the respective D/A converter ICs in the same way, the specific DACs among all ICs start operating. Therefore, the LD signal is transferred to the only ICs which are expected to operate next. The LD signal control is performed by the 3-to-8 decoders IC519 to IC520. The higher 5 bits (A7 to A3) among the 8-bit address specify the desired D/A converter IC The higher 5 bits (A7 to A3) is first latched by the $\overline{\text{WR}}$ pulse by IC518, input to IC519 and IC520 where their timings are controlled by the LD signal and the LD pulse is output to the specified IC. Functions of the DAC in each D/A converter IC and address to be specified by the Y board are shown in Table 3-3.

Address

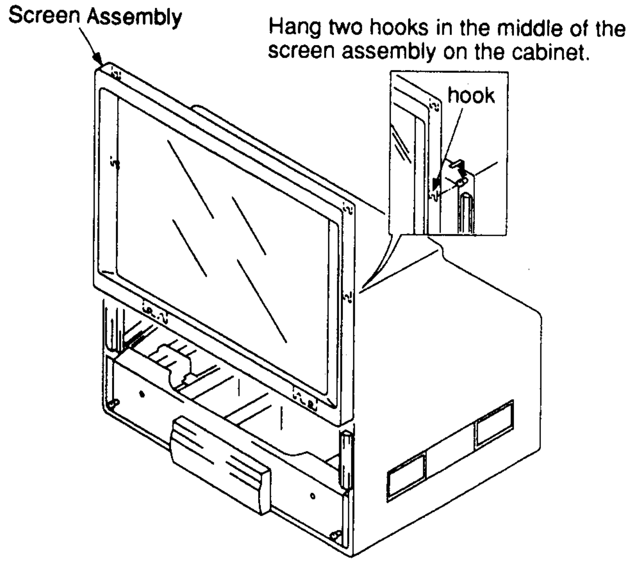
Ref. No	Pin	Address	Output Function Name
IC523	3	80	—
	2	81	H. ZONE 10 (G)
	1	82	H. ZONE 10 (R)
	24	83	H. ZONE 10 (B)
	10	84	V. PHASE
	11	85	H. ZONE 11 (G)
	12	86	H. ZONE 11 (R)
	13	87	H. ZONE 11 (B)
IC524	3	88	—
	2	89	H. ZONE 12 (G)
	1	8A	H. ZONE 12 (R)
	24	8B	H. ZONE 12 (B)
	10	8C	—
	11	8D	H. ZONE 13 (G)
	12	8E	H. ZONE 13 (R)
	13	8F	H. ZONE 13 (B)
IC525	3	90	—
	2	91	H. ZONE 14 (G)
	1	92	H. ZONE 14 (R)
	24	93	H. ZONE 14 (B)
	10	94	—
	11	95	H. ZONE 15 (G)
	12	96	H. ZONE 15 (R)
	13	97	H. ZONE 15 (B)
IC526	3	98	—
	2	99	H. ZONE 16 (G)
	1	9A	H. ZONE 16 (R)
	24	9B	H. ZONE 16 (B)
	10	9C	—
	11	9D	H. ZONE 17 (G)
	12	9E	H. ZONE 17 (R)
	13	9F	H. ZONE 17 (B)
IC527	3	C0	—
	2	C1	H. ZONE 18 (G)
	1	C2	H. ZONE 18 (R)
	24	C3	H. ZONE 18 (B)
	10	C4	—
	11	C5	H. ZONE 19 (G)
	12	C6	H. ZONE 19 (R)
	13	C7	H. ZONE 19 (B)
IC528	3	C8	—
	2	C9	H. ZONE 20 (G)
	1	CA	H. ZONE 20 (R)
	24	CB	H. ZONE 20 (B)
	10	CC	—
	11	CD	H. ZONE 21 (G)
	12	CE	H. ZONE 21 (R)
	13	CF	H. ZONE 21 (B)
IC530	3	A0	—
	2	A1	V. ZONE 10 (G)
	1	A2	V. ZONE 10 (R)
	24	A3	V. ZONE 10 (B)
	10	A4	—
	11	A5	V. ZONE 11 (G)
	12	A6	V. ZONE 11 (R)
	13	A7	V. ZONE 11 (B)
IC531	3	A8	—
	2	A9	V. ZONE 12 (G)
	1	AA	V. ZONE 12 (R)
	24	AB	V. ZONE 12 (B)
	10	AC	—
	11	AD	V. ZONE 13 (G)
	12	AE	V. ZONE 13 (R)
	13	AF	V. ZONE 13 (B)
IC532	3	B0	—
	2	B1	V. ZONE 14 (G)
	1	B2	V. ZONE 14 (R)
	24	B3	V. ZONE 14 (B)
	10	B4	—
	11	B5	V. ZONE 15 (G)
	12	B6	V. ZONE 15 (R)
	13	B7	V. ZONE 15 (B)
IC533	3	B8	—
	2	B9	V. ZONE 16 (G)
	1	BA	V. ZONE 16 (R)
	24	BB	V. ZONE 16 (B)
	10	BC	—
	11	BD	V. ZONE 17 (G)
	12	BE	V. ZONE 17 (R)
	13	BF	V. ZONE 17 (B)
IC534	3	E0	—
	2	E1	V. ZONE 18 (G)
	1	E2	V. ZONE 18 (R)
	24	E3	V. ZONE 18 (B)
	10	E4	—
	11	E5	V. ZONE 19 (G)
	12	E6	V. ZONE 19 (R)
	13	E7	V. ZONE 19 (B)
IC535	3	E8	—
	2	E9	V. ZONE 20 (G)
	1	EA	V. ZONE 20 (R)
	24	EB	V. ZONE 20 (B)
	10	EC	MG FOCUS C BIAS (R.G.B)
	11	ED	V. ZONE 21 (G)
	12	EE	V. ZONE 21 (R)
	13	EF	V. ZONE 21 (B)

Table 3-3

SECTION 4
SET-UP ADJUSTMENT

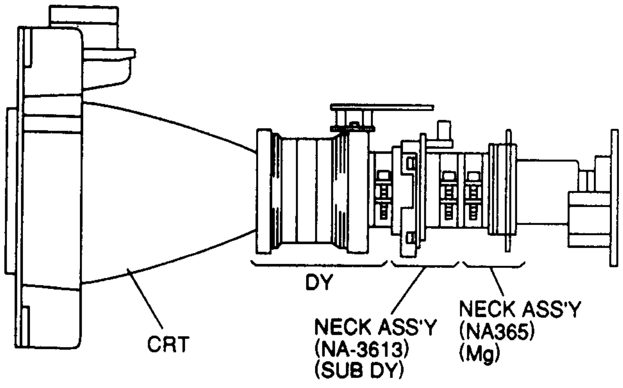
Note:

- When exchanging CRT, fit tightly DY to CRT, set neck assembly position and adjust.
- Service mode is released when the power is turned OFF.
- Set up like below when adjust from 4-1 to 4-5.


Screen Assembly
Hang two hooks in the middle of the screen assembly on the cabinet.
hook

4-1. NECK ASSEMBLY INSTALLATION

1. Fit DY tightly to CRT funnel first and then tightly fit Sub DY.
2. Temporary install 2-pole and 4-pole magnet assembly adhere to sub DY.
3. Installing CB board.



4-2. ADJUSTMENT I

Focus Rough Adjustment

1. Connect the signal of fH = 33.4kHz, fv = 60Hz to the SLOT-A, and the input monoscope signal to the SLOT-B.
2. Turn the R. G and B controls of G2 (SCREEN) adjustments fully counter-clockwise.
3. Set RV401 on the E board to the mechanical center.
4. Press down SW1-1 on the Y board so that it is set to the factory adjustment mode.
5. Insert the 2-pin shorting connector to CN55 on the CM board. (AUTO C/F. OFF)
6. Turn on the main power.
7. Press SW2 on the Y board to reset data.
8. Set the INPUT SELECT to INPUT B.
9. Let the cross-hair appear on display using the TEST key. Turn G2 control slightly until the backgrounds of R. G and B do not get gray.
10. Cut off the RED and BLUE channels so that only GREEN single color appears.
11. Adjust the electrical focus (G4) of GREEN to adjust roughly the focus on the screen.
12. Adjust the lens focus of GREEN to adjust roughly the focus on the screen.
13. Cut off the GREEN and BLUE channels so that only RED single color appears. Adjust the RED focus in the same procedures as the previous steps from 9 to 12.
14. Cut off the GREEN and RED channels so that only BLUE single color appears. Adjust the BLUE focus in the same procedures as the previous steps from 9 to 12.

Preliminary Adjustment of Center Size

1. Set the INPUT SELECT to the INPUT-B (VIDEO).
2. Select the G. CENT mode (by pressing the CENT R and B at the same time) to cut off RED and BLUE. Adjust the GREEN center to the center of screen.
3. Select the R. CENT mode to cut off BLUE. Adjust the RED center to the center of GREEN.
4. Select the B. CENT mode to cut off GREEN. Adjust the BLUE center to the center of RED.
5. Use the SIZE [G] ADJ mode to enlarge the horizontal width of the cross-hatch to the full size of screen.
6. If BLKG is turned on, turn it off.

DY Adjustment

1. Set the INPUT SELECT to the INPUT-B (VIDEO).
   When adjusting the MAIN DY, the SUB DY must not be far away from the center of the MAIN DY.
2. Adjust the GREEN MAIN DY until the horizontal line of the cross hair agrees with the horizontal line of screen. Then fix the GREEN MAIN DY.
3. Let the RED and GREEN appear on display.
4. Adjust the RED MAIN DY until the horizontal line of RED agrees with the horizontal line of GREEN.
5. Let the RED and BLUE appear on display.
6. Adjust the BLUE MAIN DY until the horizontal line of BLUE agrees with the horizontal line of RED.
7. Adjust the SUB DYs of R, G and B until they agree with the centers of the MAIN DYs respectively.

Registration Rough Adjustment

1. Set the INPUT SELECT to the INPUT-B (VIDEO).
2. Select the BLK adjustment mode and turn off all BLKGs in the left, right, top and bottom.
3. Adjust the SIZE, LIN, KEY, BOW, SKEW (only H) and PIN of GREEN so that picture distortion of GREEN is roughly adjusted.
4. Adjust the SIZE, LIN, KEY, BOW, SKEW (only H) and PIN of RED so that registration of RED agree with GREEN. (rough adjustment)
5. Adjust the SIZE, LIN, KEY, BOW, SKEW (only H) and PIN of BLUE so that registration of BLUE agree with RED. (rough adjustment)
6. Press the MEMORY key.

G2 Adjustment

1. Set the INPUT SELECT to the INPUT-C (no signal).
2. Remove the 2-pin shorting connector from the CM board. (AUTO C/F. ON)
3. Check that the respective values gain and bias are the reset values by pressing the GAIN and BIAS keys.
   Reset values

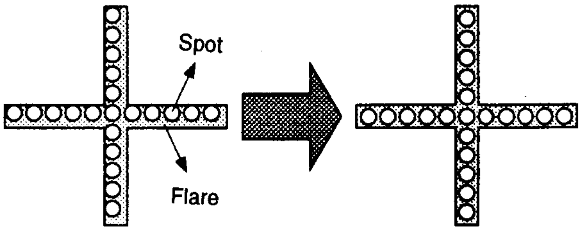
GAIN	R: 192	BIAS	R: 128
	G: 197		G: 128
	B: 208		B: 128

4. Press the NORM key so that the GAIN and BIAS indications disappear.
5. Insert the G2 adjustment tool to the connector CN58 on the CM board.
6. Adjust the G2 adjustment controls of R, B and G until the pin ④ (RED), pin ③ (GREEN) and pin ② (BLUE) become the specified voltage as shown below.
   Specification voltage 4.0 ± 0.2V

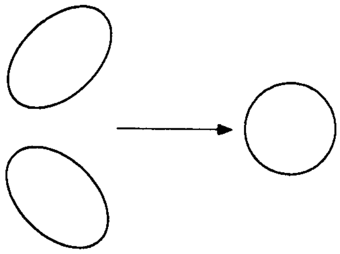
2/4 Pole Adjustment

Note: When adjusting the 2/4 poles, be sure that the picture distortion must have already roughly adjusted earlier.

1. Set the INPUT SELECT to the INPUT-B (VIDEO).
2. Press the TEST key to show the internal cross-hair signal.
3. Set CONTRAST to its MAX.
4. Cut off RED and BLUE.
5. Turn the GREEN FOCUS adjustment control of the focus pack to the point which has slightly exceeded the optimum focus point so that cross-hair has flare.
6. Adjust the 2-pole magnet so that the spot comes to the center of the flare.



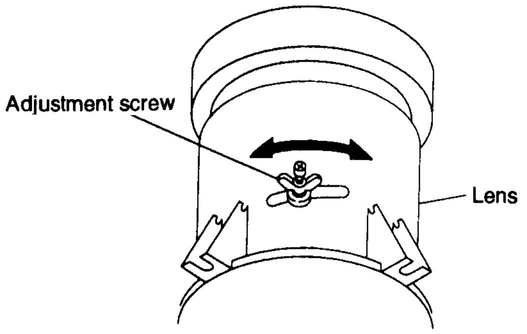
7. Press the TEST key to show the internal dot signal.
8. Adjust the GREEN FOCUS adjustment control counter-clockwise to the point which has slightly exceeded the optimum focus point so that the dots are over-focused.
9. Adjust the 4-pole magnet so that the dots become round.



10. Repeat the previous steps from 1 to 7 until tracking of these adjustments is established.
11. Adjust FOCUS for the optimum focus point.
12. Repeat the previous steps from 1 to 9 to the RED and BLUE channels.
13. Select the CENT adjustment mode and adjust centering of R, B and G again.
14. Press the RESET key to return CONTRAST to 80.
15. Keep pressing the MEMORY key until the standard save is obtained.
16. Fix the 2/4-pole magnets using white paint.

FOCUS Adjustment

1. Set the INPUT SELECT to the INPUT-C (no signal).
2. Press the TEST key to show the H pattern.
3. Cut off RED and BLUE to show GREEN only.
4. Adjust the GREEN FOCUS adjustment control for the optimum focus.
5. Press the TEST key to show the cross hatch pattern.
6. Adjust lens until the cross hatch pattern at the center of screen is clearly visible.
7. Press the TEST key again to show the H pattern.
8. Adjust the GREEN FOCUS adjustment control again until the H pattern is clearly visible.
9. Cut off GREEN and BLUE to RED only. Repeat the previous steps 3 to 8 until the H pattern of RED is clearing visible by adjusting the lens and electrical focus.
10. Cut off RED and GREEN to BLUE only. Repeat the previous steps 3 to 8 until the H pattern of BLUE is clearing visible by adjusting the lens and electrical focus.
    Tighten the butterfly screw with the tightening torque of 7kg cm to 11kg cm.



No Signal Phase Adjustment

1. Set SW1-4 on the Y board to the low position.
2. Set the INPUT SELECT to INPUT A.
   Connect the input signal of f_H = 33.4kHz and f_v = 60Hz to INPUT A.
3. Select the CENT adjustment mode and adjust centerings of R, G and B.
4. Set the INPUT SELECT to INPUT C (no signal).
5. Enter the SHIFT adjustment mode. Press the TEST key to show the cross hair signal. Cut off RED and BLUE and adjust the horizontal direction only of the GREEN center to the screen center.
6. Press the MEMORY key to memorize the data.
7. Set SW1-4 on the Y board to the up position.
8. Press the NORM key to exit the SHIFT adjustment mode.

HWC Adjustment

1. Set the INPUT SELECT to INPUT B.
2. Select the GREEN CENT adjustment mode and adjust the GREEN center to the screen center.
3. Select the RGB SHIFT adjustment mode. Cut off RED and BLUE and adjust the GREEN monoscope center to the screen center. (only H direction)
4. Press the MEMORY key.
5. Enter the SIZE adjustment mode. Keep pressing the TEST key to show the monoscope signal. Cut off RED and BLUE and adjust H SIZE to its MAX.
6. Enter the LIN adjustment mode and adjust H. LINEARITY roughly again.
7. Turn RV104 on the E board until H SIZE o the monoscope signal becomes 15 divisions of the screen.
8. Enter the SIZE adjustment mode gain and adjust H SIZE to 16 divisions and V SIZE to 12 divisions.
9. Press the NORM key to exit the adjustment mode.
10. Enter the RED CENTERING adjustment mode. Cut off BLUE and adjust the RED center to be agreed with the GREEN center.
11. Enter the SIZE + <R> adjustment mode and set the H SIZE data to [128].
12. Enter the LIN adjustment mode and adjust the RED H LINEARITY roughly again.
13. Turn HWC (L3) on the E board so that the RED H SIZE agrees with the GREEN horizontal size.
    When adjusting HWC, the H SIZE data of the RED and BLUE must surely be [128].
14. Adjust BLUE by performing the equivalent steps from 11 to 14 for blue channel.
15. Adjust RV5 on the DA board until the monoscope V center agrees with the screen center.
16. Press the MEMORY key to memorize the data.
17. Turn off the power.

4-3. REGISTRATION ADJUSTMENT

Note: To perform the REGISTRATION adjustment, the shield (F), shield (U), control panel and screen must have already been attached earlier.

GREEN Registration Adjustment - no signal

1. Remove all input signals from the INPUT connectors.
2. Enter the GREEN centering adjustment mode. Adjust center of internal signal to the screen center.
3. Adjust ⑥, ⑦, ⑧ and ⑨ of the SIZE, LIN, SKEW, BOW, KEY, PIN and ZONE adjustments until the GREEN cross hatch signal satisfies the specifications of screen.
4. Press the MEMORY key to memorize the data.

RED and BLUE Registration Adjustment - no signal

1. Enter the RED CENTERING adjustment and adjust the RED center until the RED center agrees with the screen center.
2. Adjust ② to ⑨ of the SIZE, LIN, SKEW, BOW, KEY, PIN and ZONE adjustments until the RED cross hatch signal agrees with the GREEN cross hatch signal.
3. Press the MEMORY key to memorize the data.
4. Adjust BLUE until BLUE agrees with RED in the equivalent procedures from steps 1 to 3.

Standard Save

1. Keep pressing the MEMORY key until the standard save is completed.

Registration Adjustment - Blocks 1, 2, 3, 4, 6, 7 and 8

1. Connect input signal of fH = 75kHz, fv = 60Hz to the SLOT-A.
2. Enter the GREEN centering adjustment mode and adjust the GREEN center until the GREEN center agrees with the screen center.
3. Adjust 2 to 21 of the SIZE, LIN, SKEW, BOW, KEY, PIN and ZONE adjustments of GREEN until the internal GREEN cross hatch signal satisfies the specifications of screen.
4. Adjust 2 to 21 of the SIZE, LIN, SKEW, BOW, KEY, PIN and ZONE adjustments of RED in the same manner until the internal RED cross hatch signal agrees with the GREEN signal.
5. In the same manner, adjust the BLUE signal so that the BLUE signal agrees with the RED signal.
6. Press the MEMORY key to memorize data.
7. Change fH and fv as shown and adjust the remaining blocks in the same manner as steps 2 to 6.

Block	fH (kHz)	fv (Hz)	S ON G	H SYNC	V SYNC
08	15.7	60	YES	YES	YES
07	21.2	60	YES	YES	YES
06	27.3	60	YES	YES	YES
05	33.0	60	YES	YES	YES
04	41.0	60	YES	YES	YES
03	50.0	60	YES	YES	YES
02	61.0	60	YES	YES	YES
01	75.0	60	YES	YES	YES

VIDEO SIZE, SHIFT Adjustment

1. Connect the input monoscope signal to the SLOT B. Using the SIZE and SHIFT keys, adjust the monoscope center to the screen center, adjust H. SIZE to 16 divisions and adjust V. SIZE to 12 divisions. Press the MEMORY key.
2. Using the RS422 tool, read the VIDEO SIZE and SHIFT data, and write them.
3. While the main power of the machine is kept ON, set the DIP switch SW1-1 on the Y' board to ON.
4. Turn off the main power of the machine.

VIDEO BLK Adjustment

1. Turn on the main power of the machine. Press the PAGE key to cancel the all white mode. Press the BLK key to enter the BLK adjustment mode. Adjust the blanking positions in top, bottom, left and right so that they are located 30 steps outside the effective area of screen.
2. Using the RS422 tool, read the VIDEO BLK data, and write them. Turn off the main power of the machine.
3. Set the DIP switch SW1-1 on the Y board to OFF.

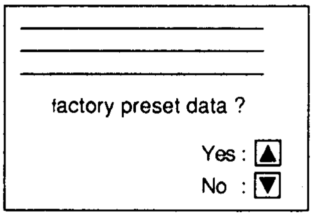
4-4. WHITE BALANCE ADJUSTMENT

< Preparations >

① Press TEST key for more than 5 sec.
② Screen display will change to service man mode display.
③ Press arrow key ▲.

1. G2 (Screen) VR Adjustment

① Use the commander to select an input not connected to a signal and set it into a non signal condition.
(Set fH: 34kHz)
② Press the TEST key continuously for five seconds, and press the ▲ key to set the service man mode.
(Not required if already in the service man mode.)
③ Press the PAGE key and set the color temperature to 6500°K.
④ Press the BIAS key and set the bias adjustment mode.
⑤ Press the arrow ◀ and ▶ keys simultaneously and check that the following messages are displayed.
⑥ Press the arrow ▲ key. (This will input the factory preset data in the memory.)



factory preset data ?

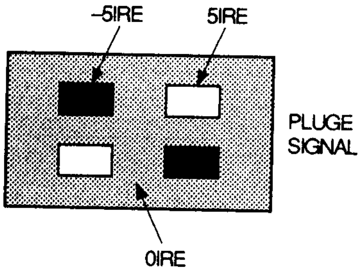
Yes : ▲
No : ▼

⑦ When performing adjustments using the digital voltmeter, adjust as follows.
1) Adjust the BLUE G2 VR so that the volatage between pins ① and ② of the CN58 connector of the CM board becomes 4 ± 0.2VDC.
2) Adjust the GREEN G2 VR so that the volatage between pins ① and ③ of the CN58 connector of the CM board becomes 4 ± 0.2VDC.
3) Adjust the RED G2 VR so that the volatage between pins ① and ④ of the CN58 connector of the CM board becomes 4 ± 0.2VDC.

⑧ When performing adjustments without using the digital voltmeter, adjust as follows.
1) Short circuit ① and ② of the CN55 connector (2P) of the CM board.
2) Postulate to pich-dark around the set, and adjust the brightness of the R, G, B single colors tothe following, by rotating G2VR.

Note: Adjust with the tube display turned on.

3) The background (0IRE) becomes as bright as –5IRE. Adjsut to the point where +5IRE is slightly shining.
Release the short in 1).



Color Temperature 6500°K Adjustment

1. Set the INPUT SELECT to INPUT B and press the RESET key to obtain CONTR = 80 and BRT = 50.
2. Press the PAGE key until the COLOR TEMP. is set to 6500°K.
3. Press the GAIN key and confirm that the GAIN BLUE data has already been adjusted.
4. Press the GAIN key until the GREEN and RED data of GAIN are set to the initial values.

   $$\text{GAIN initial values: } \begin{cases} R: 1.00 * X \\ G: 0.98 * X \\ B: X \end{cases}$$
5. Press the STATUS <OFF> key so that display on screen disappears.
6. Attach the W/B adjustment tool to the screen.
7. Connect the all white signal of 10 IRE to INPUT B.
8. Press the BIAS key then TEST key successively so that the all white signal of 10 IRE is shown on screen.
9. Adjust <G> ADJ, <R> ADJ. and <B> ADJ. so that the luminance of 1.5 nits and color temperature of 6500°K are obtained.

   6500°K color temperature

   x: 0.313

   y: 0.329

   The luminance of 1.5 nits is measured by CA-100.
10. Change the input signal to all white signal of 100 IRE.
11. Press the GAIN key to enter the GAIN adjustment mode.
12. While the GAIN BLUE data is fixed, adjust <G> ADJ. and <R> ADJ. until color temperature of 6500°K is obtained.
13. Repeat steps 9 to 12 to obtain tracking of adjustments.
14. Press the MEMORY key to memorize the data.

Color Temperature 9300°K Adjustment

1. Press the STATUS <ON> key so that display on screen appears.
2. Press the GAIN key until the GREEN and RED data of GAIN are set to the initial values.

   $$\text{GAIN initial values: } \begin{cases} R: 0.66 * X \\ G: 0.74 * X \\ B: X \end{cases}$$
3. Press the STATUS <OFF> key so that display on screen disappears.
4. Connect the all white signal of 10 IRE to the INPUT B.
5. Press the BIAS key then TEST key successively so that the all white signal of 10 IRE is shown on screen.
6. Adjust <G> ADJ, <R> ADJ. and <B> ADJ. so that the luminance of 1.5 nits and color temperature of 9300°K are obtained.

   9300°K color temperature

   x: 0.283

   y: 0.297

   The luminance of 1.5 nits is measured by CA-100.
7. Change the input signal to all white signal of 100 IRE.
8. Press the GAIN key to enter the GAIN adjustment mode.
9. While the GAIN BLUE data is fixed, adjust <G> ADJ. and <R> ADJ. until color temperature of 9300°K is obtained.
10. Repeat steps 6 to 9 to obtain tracking of adjustments.
11. Press the MEMORY key to memorize the data.

Color Temperature 3200°K Adjustment

1. Press the STATUS <ON> key so that display on screen appears.
2. Press the GAIN key until the GREEN and RED data of GAIN are set to the initial values.

   $$\text{GAIN initial values: } \begin{cases} R: 0.96 * X \\ G: 0.44 * X \\ B: 0.22 * X \end{cases}$$
3. Press the STATUS <OFF> key so that display on screen disappears.
4. Connect the all white signal of 10 IRE to the INPUT B.
5. Press the BIAS key then TEST key successively so that the all white signal of 10 IRE is shown on screen.
6. Adjust <G> ADJ, <R> ADJ. and <B> ADJ. so that the luminance of 1.5 nits and color temperature of 3200°K are obtained.

   3200°K color temperature

   x: 0.427

   y: 0.408

   The luminance of 1.5 nits is measured by CA-100.
7. Change the input signal to all white signal of 100 IRE.
8. Press the GAIN key to enter the GAIN adjustment mode.
9. While the GAIN RED data is fixed, adjust <G> ADJ. and <B> ADJ. until color temperature of 3200°K is obtained.
10. Repeat steps 6 to 9 to obtain tracking of adjustments.
11. Press the MEMORY key to memorize the data.
12. Remove the W/B adjustment tool from the screen.

Color Temperature PRESET Adjustment

1. Input the data of GAIN and BIAS at the color temperature 6500°K adjustment.
2. Press the MEMORY key.
3. Press the PAGE key to set the color temperature to 6500°K, and press the MEMORY key.

4-5. R. G. B. BLANKING ADJUSTMENTS

R. G. B. Blanking Adjustment

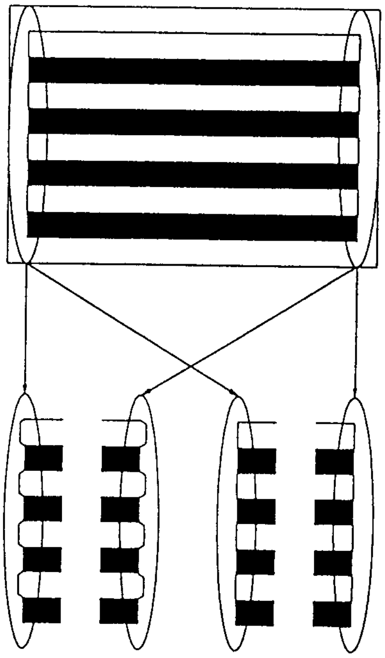
1. Connect the input signal of fH = 15.75kHz, fv = 60Hz to the SLOT-A.
2. Set the INPUT SELECT to the INPUT-A.
3. Set BRT to its MAX.
4. Enter the BLKG adjustment mode. Press the TEST key twice to show the internal cross hatch signal.
5. Using the "◁" , "▷" , " △ " , " ▽ " keys and "+" , "–" keys, adjust the BLK positions in top, bottom, left and right until the BLK positions are positioned at 30 steps outside the effective are on the screen.
6. Press the MEMORY key.
7. Change fH of the input signal. Adjust the remaining registration blocks from 2 to 8 following the steps from 3 to 5.

Block	fH (kHz)	fv (Hz)
08	15.7	60
07	21.2	60
06	27.3	60
05	33.0	60
04	41.0	60
03	50.0	60
02	61.0	60
01	75.0	60

8. Return BRT to 50.

High Tension Picture Bending Adjustment (RV101)

1. Press the INPUT A key. Connect the input signal of the RGB stripe signal of fH = 31.5kHz.
2. Keep pressing the "+" keys of CONTR and BRIGHT until their level become MAX.
3. Adjust RV101 on the E board until the stripes in the left and right become straight.


NG OK

SECTION 5
SAFETY RELATED ADJUSTMENT

When exchanging ◪ part check HV hold-down circuit, HV regulation circuit, LOW B protector circuit and beam current protector circuit.

⊠ R33, R34 [HV hold-down] PA board.

◪ IC2, Q7, D9, D12, C13, R20, R21, R22, R23, R24, R33, R34, R35, R36, R82, HV BLOCK, PA mount

⊠ R131, R132, [HV regulation] PA board

◪ IC1, IC7, IC8, IC9, IC10, IC11, IC12, IC13, R38, R39, R63, R64, R65, R66, R69, R72, R78, R80, R131, R132, X1, HV BLOCK, PA mount, PB mount

⊠ R29, R30, [LOW B protector] PA board

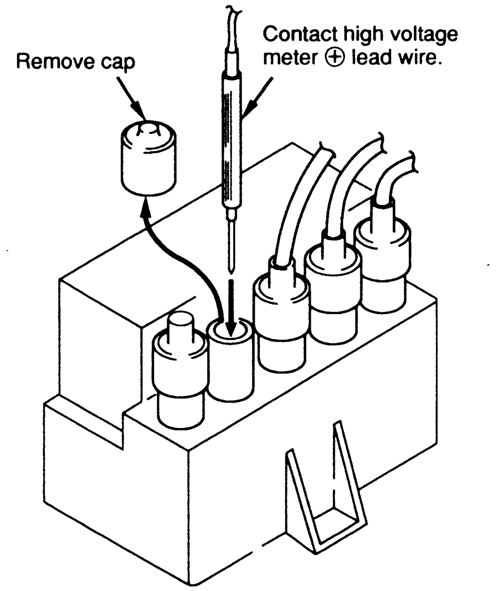
◪ IC1, IC3, IC5, Q8, D4, D5, D10, D11, R9, R10, R26, R28, R29, R30, R31, R88, R95, PA mount

⊠ R1, R4, [Beam current protector] PA board

◪ IC2, IC3, IC5, Q1, Q2, Q7, Q8, D4, D5, D9, R1, R2, R3, R4 R5, R6, R7, R8, R9, R10, R20, R21, R22, R23, R24, R43, R44, R45, R46, R47, R82, R88, R121, R122, R143, R144, R733 (DA board), PA mount, PB mount

⊠ R33,R34 : HV Hold-down

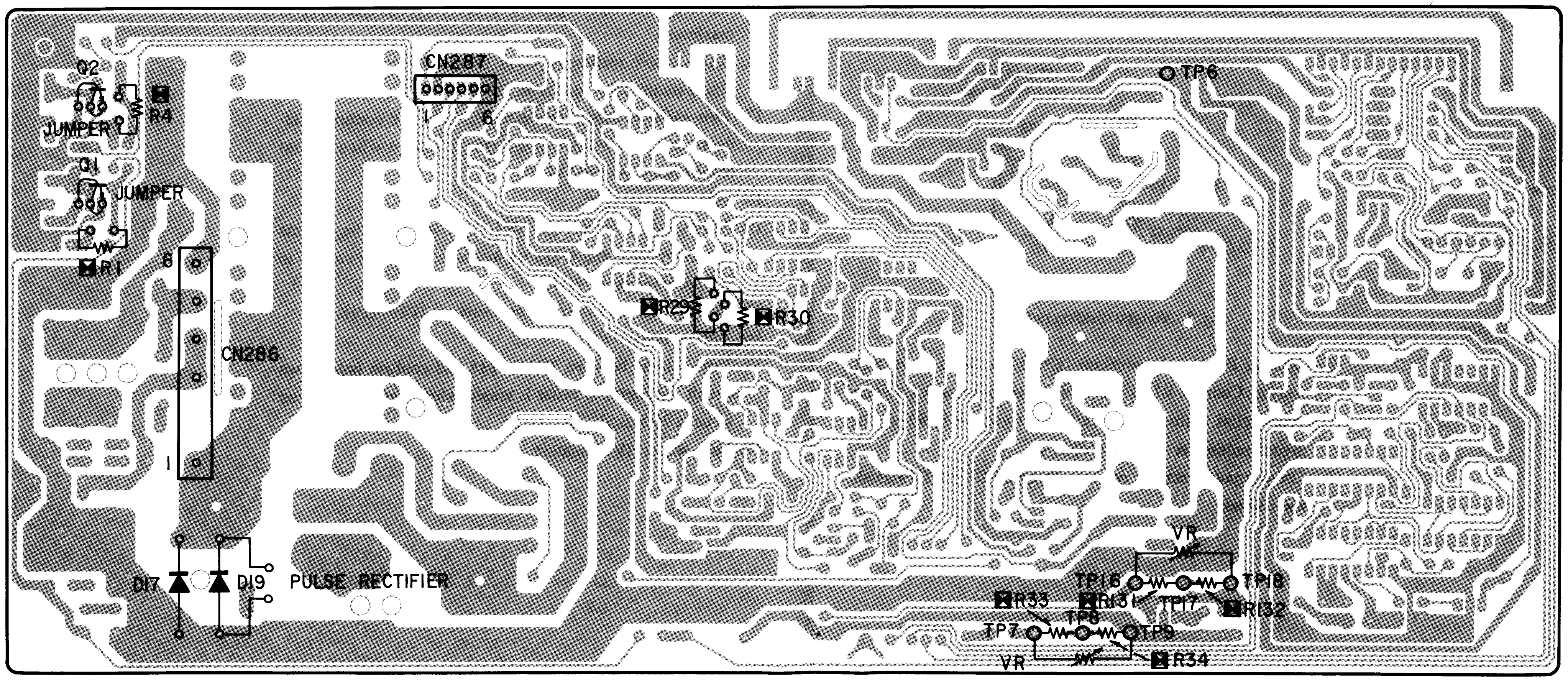
1. Confirm set power is turned OFF.
2. Connect high voltage meter ⊕ to HV filter vacant terminal and ⊖ to chassis earth.
3. Remove resistance mounted between PA board TP7–TP9. Connect variable resistor and set at 47KΩ.
4. Remove resistance mounted between PA board TP16–TP18.Connect variable resistor and set at 27KΩ.
5. Turn RV1 fully counterclockwise
6. Turn set power ON.
7. Input monoscope signal, and set RGB CUT OFF switch to ON.
8. Turn variable resistor between TP16–TP18 to change resistance value and adjust high voltage to around 34.0±0.3KV.
9. Turn variable resistor between TP7–TP9 to change resistance value, adjust high voltage to around 34.0±0.3KV, and confirm hold-down circuit operates and raster disappears.
10. Turn set power OFF.
11. Remove variable resistor between TP7–TP9. Measure the volume resistance value and solder on the same amount of resistance to R33, R34 (carbon, 1/4W).
12. Next, slightly raise volume resistance value between TP16–TP18.
13. Turn set power ON.
14. Turn variable resistor between TP16–TP18 again and raise high voltage. Confirm hold-down circuit operates at 34.0±0.3KV and raster disappears.
15. Next, adjust HV regulation.


Remove cap

Contact high voltage meter ⊕ lead wire.

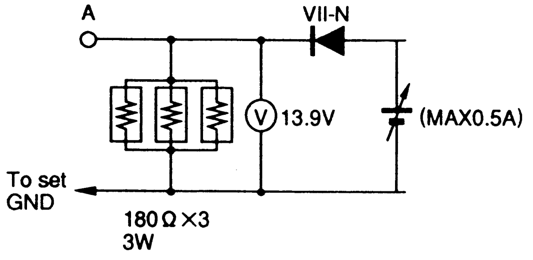
⊠ R131, R132 : HV reguration

1. Confirm set power is OFF.
2. Connect high voltage meter ⊕ to HV filter vacant terminal and ⊖ to chassis earth.
3. Set variable resistor between PA board TP16–TP18 to 27KΩ.
4. Turn set power ON.
5. Press CUT-OFF key and cut-off R. G. B.
6. Turn variable resistor between TP16–TP18 to change resistance value and adjust high voltage to around 33.0±0.3KV.
7. Turn set power OFF.
8. Remove variable resistance between TP16–TP18. Measure the volume resistance value and solder on the same amount of resistance to R131,R132 (carbon, 1/4W).
9. Turn set power ON.
10. Confirm high voltage meter reads 33.0±0.3KV.
11. Turn set power OFF and remove high voltage meter.



⊠ R29, R30 : LOW B Protector

- Prepare jig circuit as shown in figure.

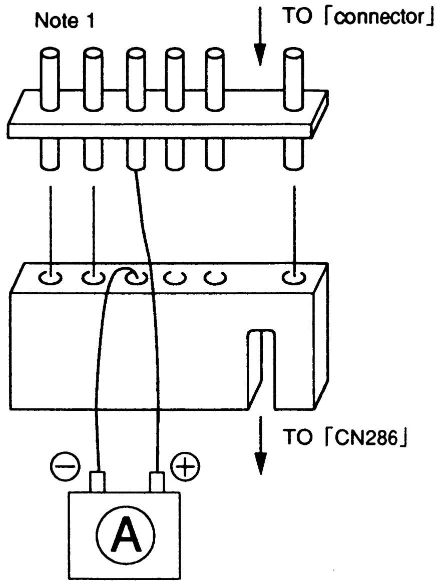


- Adjust until high voltage meter shows 13.9V.

1. Turn set power ON.
2. Contact jig circuit A point to PA board TP6 (12V line) for 0.5–1 sec, and remove immediately. Confirm power turns OFF when doing so.
3. If power does not turn OFF, adjust R29, R30.

⊠ R1,R4 : Beam Current Protector

1. Confirm set power is turned OFF.
2. Disconnect PA board connector CN286 and connect jig shown in figure.
3. Short circuit PA board Q1 emitter and collector.
4. Turn set power ON.
5. Input monoscope signal, send beam current by CONTR, BRT and G2VR, and confirm protector circuit operates at under 4700μA and raster is erased.
6. If protector circuit does not operate, adjust R4.
7. Remove jig short–circuiting Q1 emitter and collector.
8. Next, short–circuit Q2 emitter and collector.
9. Turn set power On.
10. Send beam current by CONTR, BRT and G2VR, and confirm protector operates at under 4700μA and raster is erased.
11. When protector does not operate, adjust R1.
12. Remove jig short–circuiting Q2 emitter and collector.



NOTE : Be sure to open pin 3

To check without Using High Voltage Meter

⊠ R33, R34 : HV Hold-down

1. Use voltage dividing network shown in figure to calibrate detection until.

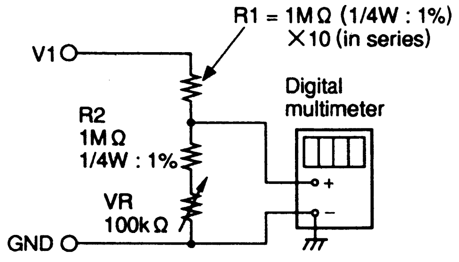
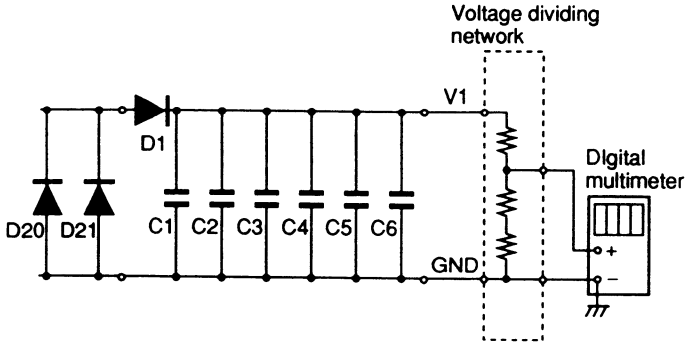


Fig. 1 : Voltage dividing network

2. Remove PA board connector (CN287) to hold down high voltage. Connect V1 to 100V line of set and read V1 voltage with digital multimeter. Next, adjust volume (VR) so that digital multimeter value is 1/10 of V1.
3. Connect pulse rectifier between Pa board D17 or D19 anode and cathode.



Pulse rectifier D1 : VIN-N
C1~C6 : 20000P/1.6KV

4. Confirm set power is turned OFF.
5. Confirm pulse rectifier and voltage dividing network are connected.
6. Remove resistance mounted between PA board TP7–TP9, connect volume and set at 47KΩ.
7. Remove resistance mounted between TP16–TP18, connect volume and set at 27KΩ.
8. Turn RV1 fully counter clockwise.
   Connect PA board connector (CN287).
9. Turn set power ON.
10. Input monoscope signal, and set CONTR and BRT at maximum.
11. Turn variable resistor between TP16–TP18 and adjust until digital multimeter value is 96.5±0.5VDC.
12. Turn variable resistor between TP7–TP9, and confirm hold-down circuit operates and luster is erased when digital multimeter is 96.5±0.5VDC.
13. Turn set power OFF.
14. Remove volume between TP7–TP9. Measure the volume resistance value and solder on the same resistance volume to R33, R34 (carbon 1/4W).
15. Slightly raise volume resistance between TP16–TP18.
16. Turn set power ON.
17. Turn volume between TP16–TP18 and confirm hold–down circuit operates and raster is erased when digital multimeter value is 96.5±0.5VDC.
18. Next, adjust HV regulation.

⊠ R131, R132 : HV Regulation

1. Confirm set power is OFF.
2. Set variable resistor between PA board TP16–TP18 at 27KΩ.
3. Turn set power ON.
4. Press CUT-OFF key to cut –off R, G, B.
5. Turn variable resistor between TP16–TP18 and change resistance value. Confirm digital multimeter value is 83.5±0.5VDC.
6. Turn set power OFF.
7. Remove TP16–TP18 variable resistor. Measure the volume resistance value and solder on the same resistance volume to R131, R132 (carbon 1/4W).
8. Turn set power ON.
9. Confirm digital multimeter value is 83.5±0.5VDC.
10. Turn set power OFF and remove pulse rectifier.

Confirmation when replacing Power Supply Block

Confirm that the voltage of +BMax, voltage is within the standard value when replacing Power Supply Block.

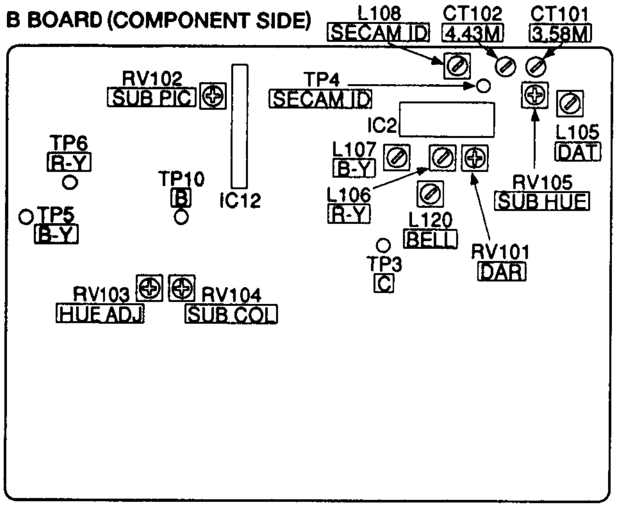
SECTION 6
CIRCUIT ADJUSTMENT

Note :

Fit DY (deflection yoke) tightly to picture tube when conducting basic adjustment, electric adjustment or exchanging picture tube.

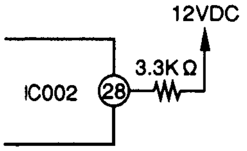
6-1. B BOARD ADJUSTMENT

Add XR board (3-702-672-01), Complete to extend

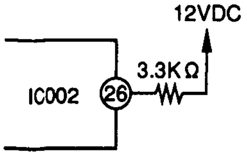

B BOARD (COMPONENT SIDE)
L108
SECAM ID
CT102
4.43M
CT101
3.58M
RV102
SUB PIC
TP4
SECAM ID
IC2
L105
DAT
TP6
R-Y
L107
B-Y
TP10
B
IC12
RV105
SUB HUE
TP5
B-Y
L106
R-Y
L120
BELL
RV101
DAR
TP3
C
RV103
HUE ADJ
RV104
SUB COL

REF. OSC Adjustment (CT101, CT102)

1. Input PAL color bar.
2. Adjust CT102 so that the display becomes colored.
3. Connect 3.3KΩ to IC002 pin ㉘, apply 12VDC and set at PAL forced MODE.


12VDC
3.3KΩ
IC002
28

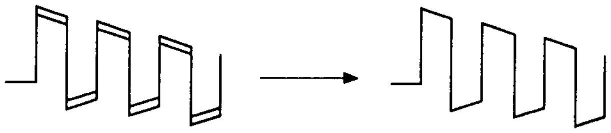
4. Ground IC002 pin ⑰ and turn color-killer OFF.
5. Adjust CT102 until screen movement slows.
6. Disconnect IC002 pin ⑰ grounding.
7. Input NTSC3.58 color bar.
8. Adjust CT101 so that the display becomes colored.
9. Connect 3.3KΩ to IC002 pin ㉖, apply 12VDC and set at NTSC3.58 forced MODE.


12VDC
3.3KΩ
IC002
26

10. Ground IC002 pin ⑰ and turn color-killer OFF.
11. Adjust CT101 until screen movement slows.
12. Disconnect 3.3KΩ connected to IC.
13. Disconnect IC002 pin ⑰ grounding.

1H DELAY LINE Adjustment

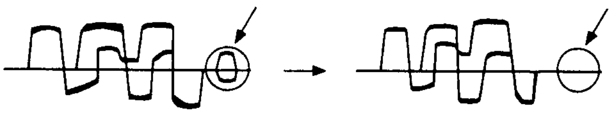
1. Input PAL color bar.
2. Connect oscilloscope to TP-5 and view wave from in H block.



(Before adjustment) (After adjustment)

3. Connect 3.3KΩ to IC002 pin ㉘, apply 12VDC and set at PAL forced MODE.
4. Adjust L105 and minimize double line part of wave.
5. Input PAl special color bar.
6. Adjust RV101 until wave ANTI PAL is at 0 – level.

* RV101 and L103 influence each other. Repeat adjustment until both condition are satisfied.



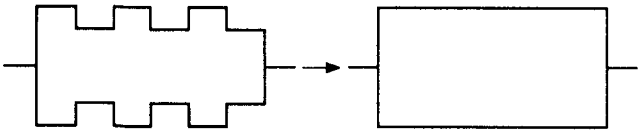
(Before adjustment) (After adjustment)

SECAM ID Adjustment (L108)

1. Input SECAM color bar.
2. Connect 3.3KΩ to IC002 pin ㉘, apply 12VDC and set at PAL forced MODE.
3. Connect digital multimeter to TP4. (input impedance over 50MΩ)
4. Adjust L108 level to maximum.

BELL Filter Adjustment (L120)

1. Input SECAM color bar.
2. Connect 3.3KΩ to IC002 pin ㉘, apply 12VDC and set at PAL forced MODE.
3. Connect oscilloscope to TP3 and view wave from of H block.
4. Adjust L120 until wave is flat.


(Before adjustment) (Before adjustment)

∗ Track L120 and L108.

SECAM DISCRI Adjustment (L106, L107)

1. Input SECAM color bar.
2. Connect 3.3KΩ to IC002 pin ㉘, apply 12VDC and set at PAL forced MODE.
3. Connect oscilloscope to TP6 and view wave from of H block.

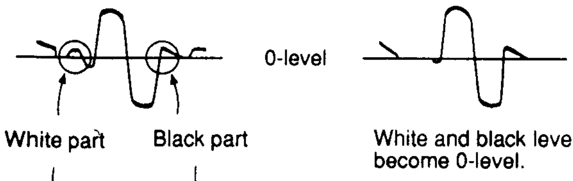
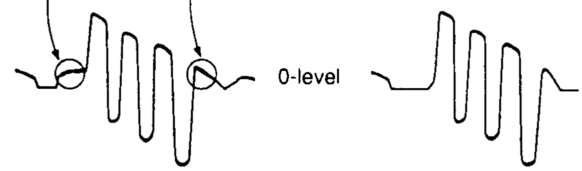
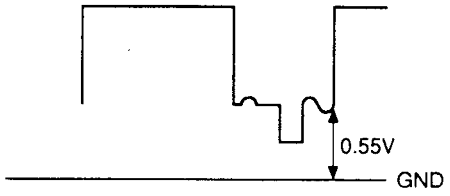
Fig. 1


Fig. 2


4. Adjust L106 until white and black part of TP6 wave become 0 – level. (Fig. 1)
5. Connect oscilloscope to TP5 and view wave from of H block.
6. Adjust L107 until white and black part of TP5 wave become 0 – level. (Fig. 2)

SUB BRIGHT Confirment

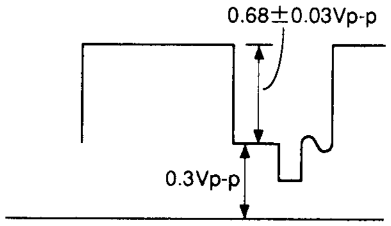
1. Input blank signal (100IRE)
2. Connect oscilloscope to B board TP5 and view wave from of H block.



3. Confirm pedestal level is 0.55 ± 0.02V.

SUB PICTURE Adjustment

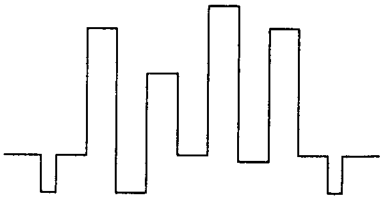
1. Input blank signal (100IRE).
2. Connect oscilloscope to B board TP5 and view wave from of H block.

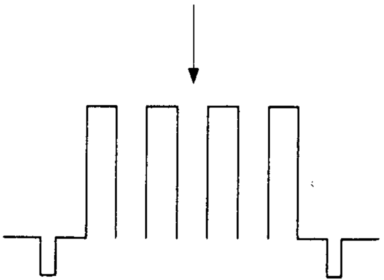


3. Adjust RV102 until pedestal to peak is 0.68 ± 0.03Vp-p.

HUE, SUB COLOR, SUB HUE Adjustment (RV103, RV104, RV105)

1. Input PAL color bar signal.
2. Connect oscilloscope to TP10 and view wave from of H block.
3. Adjust RV103 (HUE) and RV104 (SUB COL) until wave is flat.

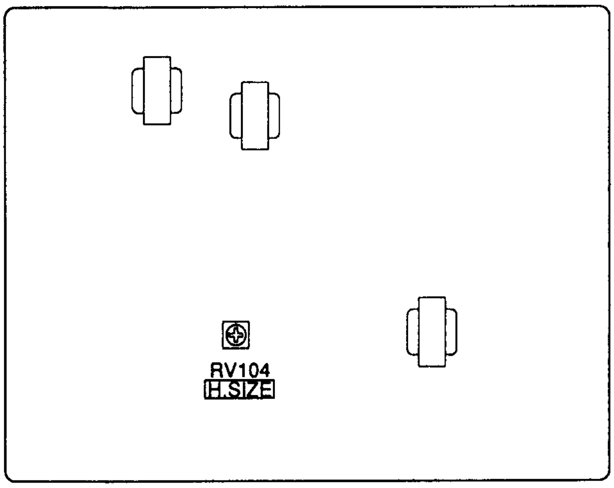

(Before adjustment)


(After adjustment)

4. Input NTSC3.58 color bar.
5. Adjust RV105 (SUB HUE) until wave is flat.

6-2. E BOARD ADJUSTMENT

E BOARD (COMPONENT SIDE)



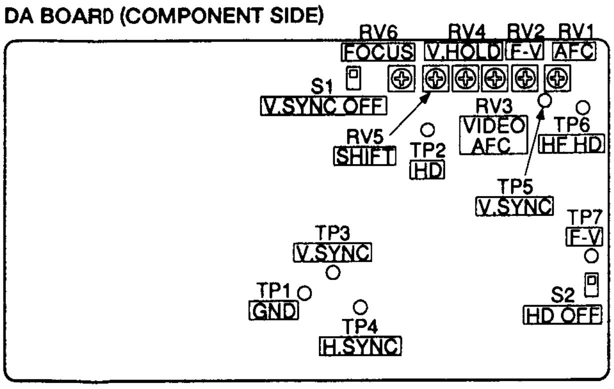
H. SIZE Adjustment (RV104)

1. Input monoscope signal.
2. Press remote commander [SIZE] key, and then arrow key ▶ to set H. SIZE at maximum.
3. Turn RV104 and adjust to frame 15.

6-3. DA BOARD ADJUSTMENT

Add XF board (3-702-671-01), Complete to extend

DA BOARD (COMPONENT SIDE)



AFC Adjustment (RV1)

1. Input approximately 30kHz R, G, B signal.
2. Turn RV1 full clockwise.
3. Press S2 (HD OFF) switch and set at image free running state.
4. Turn RV1 counter clockwise a little at a time and stop image.
5. Connect TP2 to frequency counter.
6. Read frequency counter indicated value while pressing S1 switch.
   The value is f1.
7. Turn RV1 full counter clockwise.
8. Press S2 switch and set at image free running state.
9. Turn RV1 to clockwise a little at a time and stop image.
10. Read frequency counter indicated value while pressing S2 switch.

The value is f2

11. Adjust $\frac{f1+f2}{2}$ ± 200Hz value with RV1.

Video AFC Adjustment (RV3)

1. Input video signal. (f_H=15.75kHz, fv=60Hz)
2. Turn RV3 (video AFC) full clockwise.
3. Press S2 (HD OFF) switch and set at image free running state.
4. Turn RV3 to left a little at a time and stop image.
5. Connect frequency counter to TP2.
6. Read frequency counter indicated value while pressing S2 switch.
   The value is f1.
7. Turn RV3 full counter clockwise.
8. Press S2 and set at image free running state.
9. Turn RV3 right a little at a time and stop image.
10. Read frequency counter indicated value while pressing S2.

The value is f12

11. Adjust $\frac{f1+f2}{2}$ ± 200Hz value with RV3.

V HOLD Adjustment (RV4)

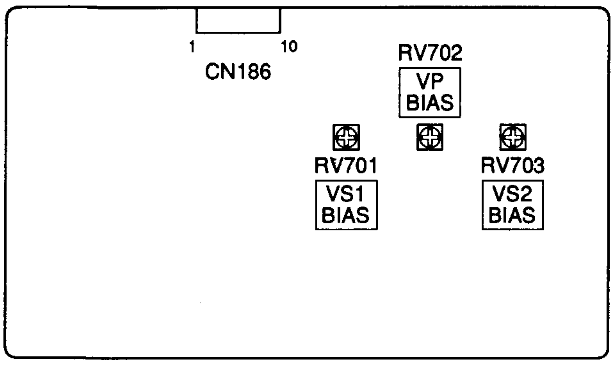
1. Set at No-signal state.
2. Press remote commander [PAGE] key and display PAGE4.
3. Press S1 (V SYNC OFF)
4. Adjust until screen display fv is 36±2Hz with RV4 (V HOLD).

PAGE 4
INPUT INFO
fH : 00.0KHz
fV : 36.0Hz

Adjust RV4 to become 36.0±2Hz

6-4. DE BOARD ADJUSTMENT

DE BOARD (COMPONENT SIDE)

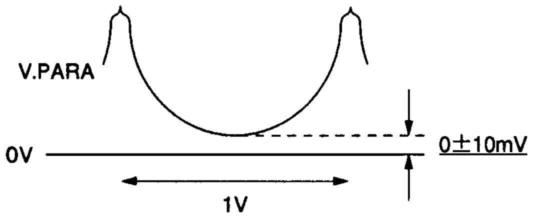

1
10
CN186
RV702
VP BIAS
RV701
VS1 BIAS
RV703
VS2 BIAS

Registration Correction Reference Waveform Offset Adjustment (RV702, RV701, RV703)

Remove all input signals from all input connectors.

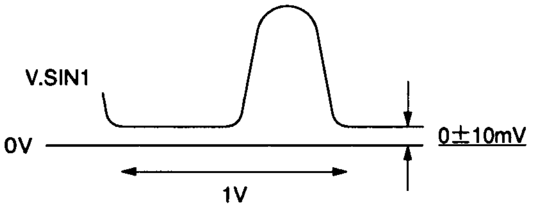
1. V. PARA OFFSET ADJUSTMENT

   Measure waveform at CN186 pin ④ using an oscilloscope and adjust RV702 until the following specifications are satisfied.


V.PARA
0V
1V
0±10mV

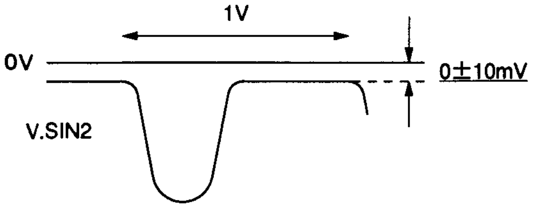
2. V. SIN1 OFFSET ADJUSTMENT

   Measure waveform at CN186 pin ⑤ using an oscilloscope and adjust RV701 until the following specifications are satisfied.


V.SIN1
0V
1V
0±10mV

3. V. SIN2 OFFSET ADJUSTMENT

   Measure waveform at CN186 pin ⑥ using an oscilloscope and adjust RV703 until the following specifications are satisfied.

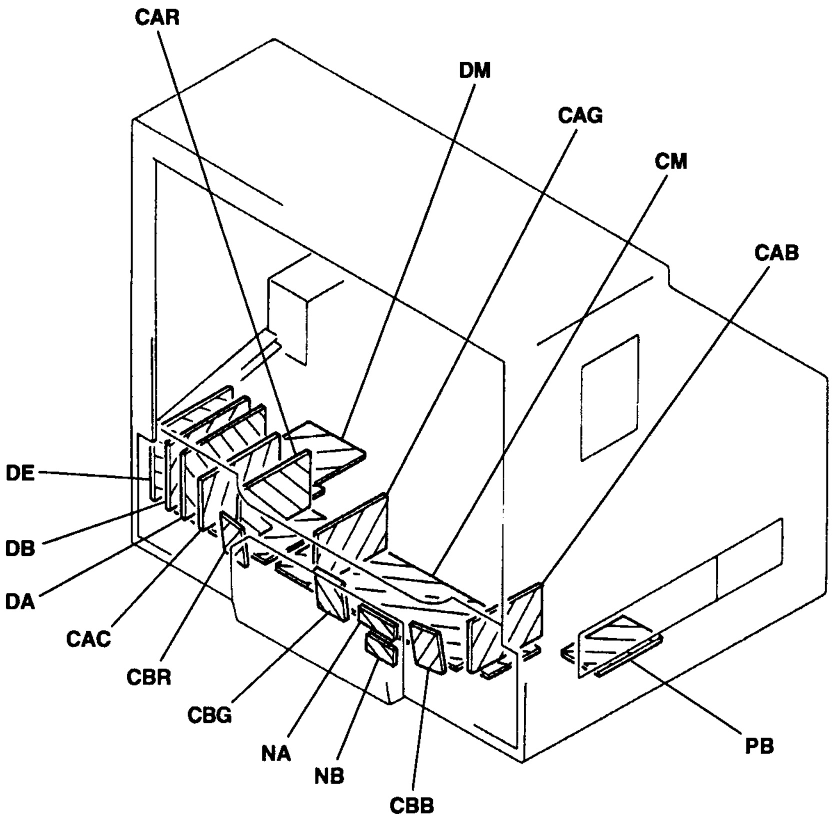

1V
0V
0±10mV
V.SIN2

MEMO

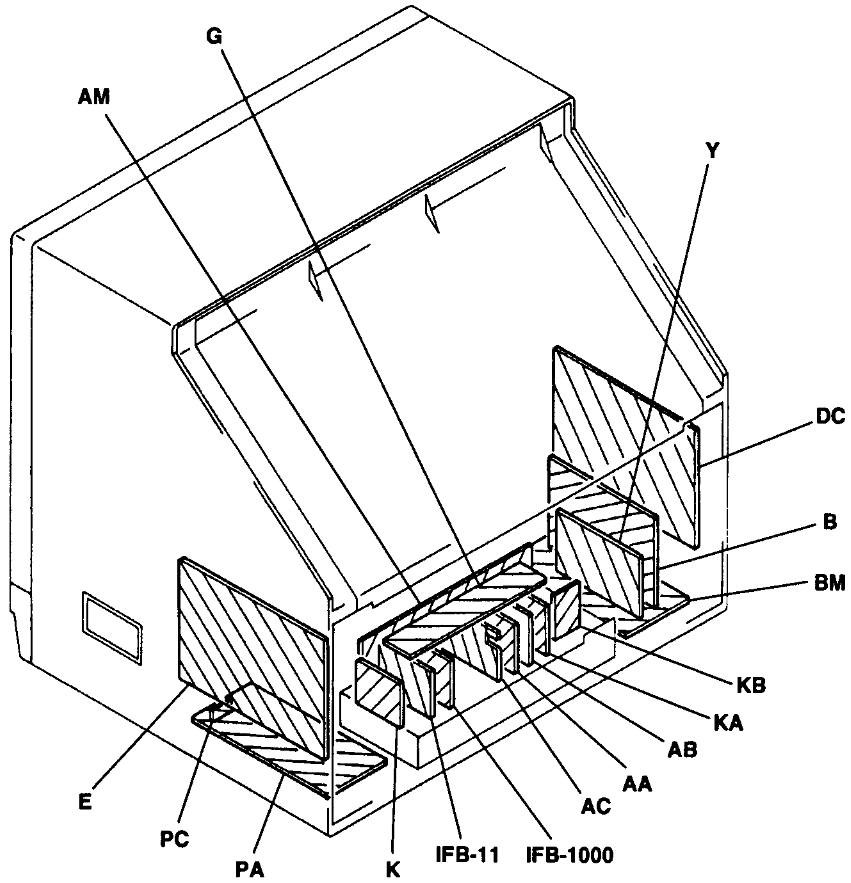
SECTION 7
DIAGRAMS

7-1. CIRCUIT BOARDS LOCATION

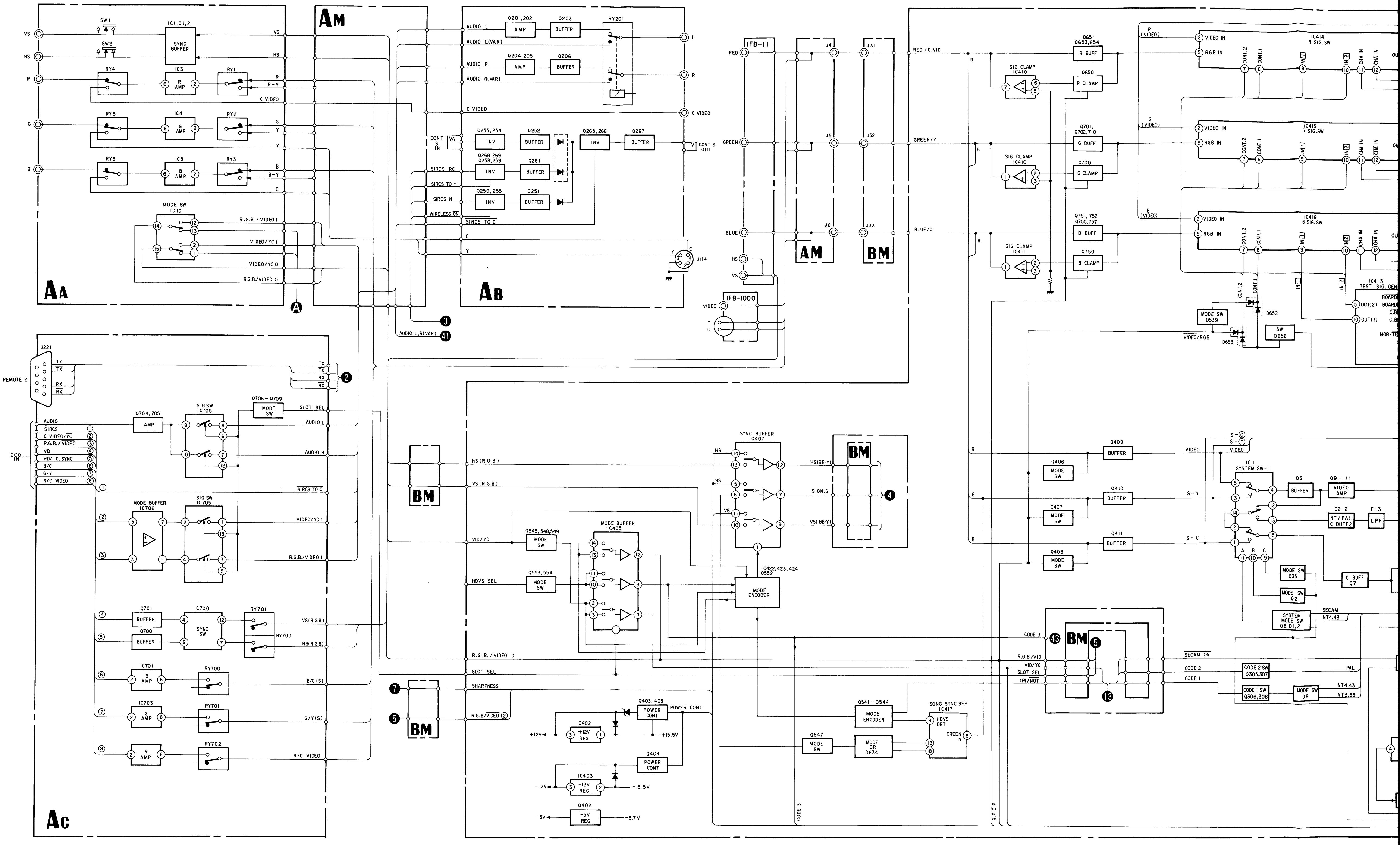
(1)

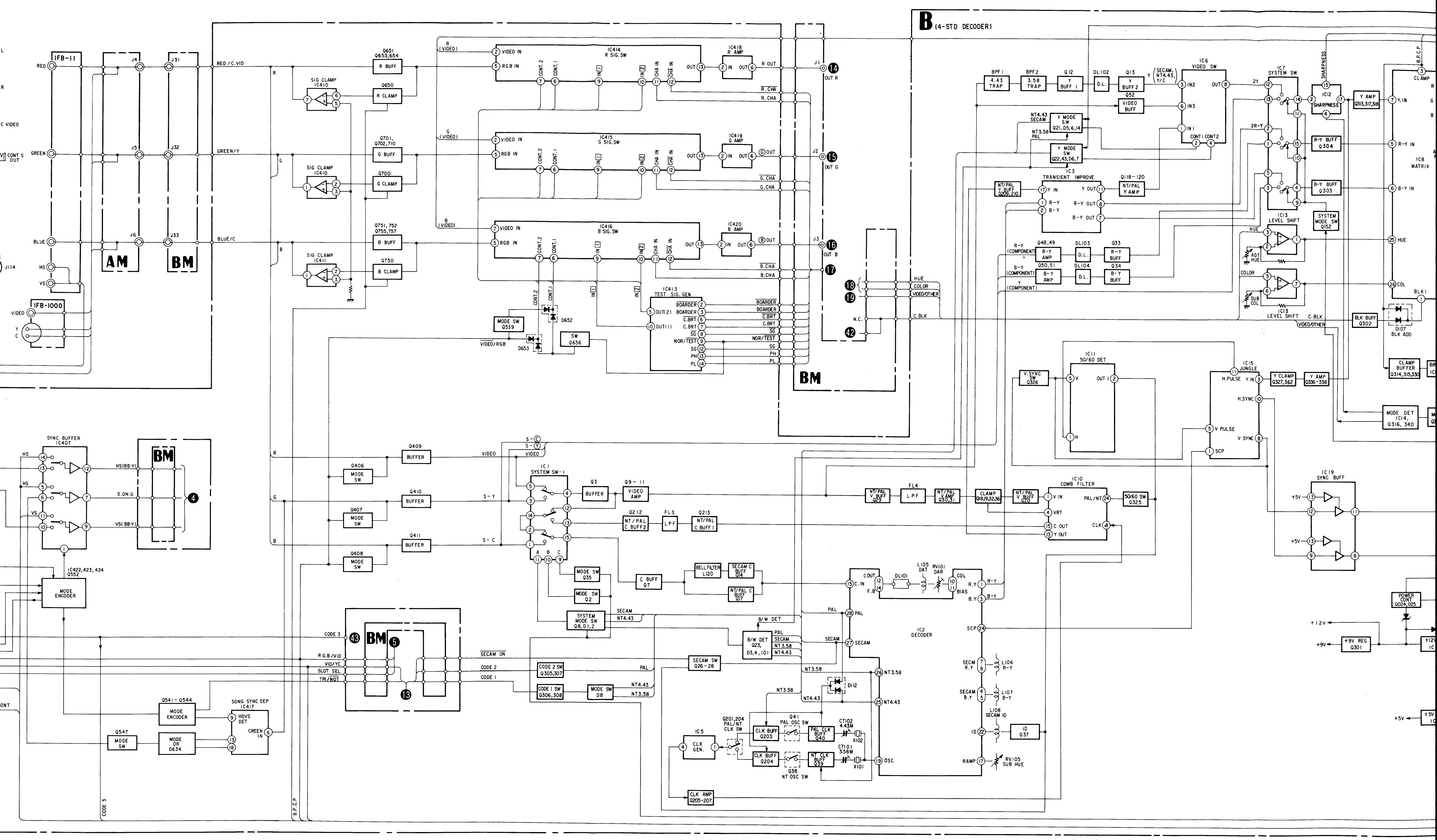

CAR
DM
CAG
CM
CAB
DE
DB
DA
CAC
CBR
CBG
NA
NB
CBB
PB

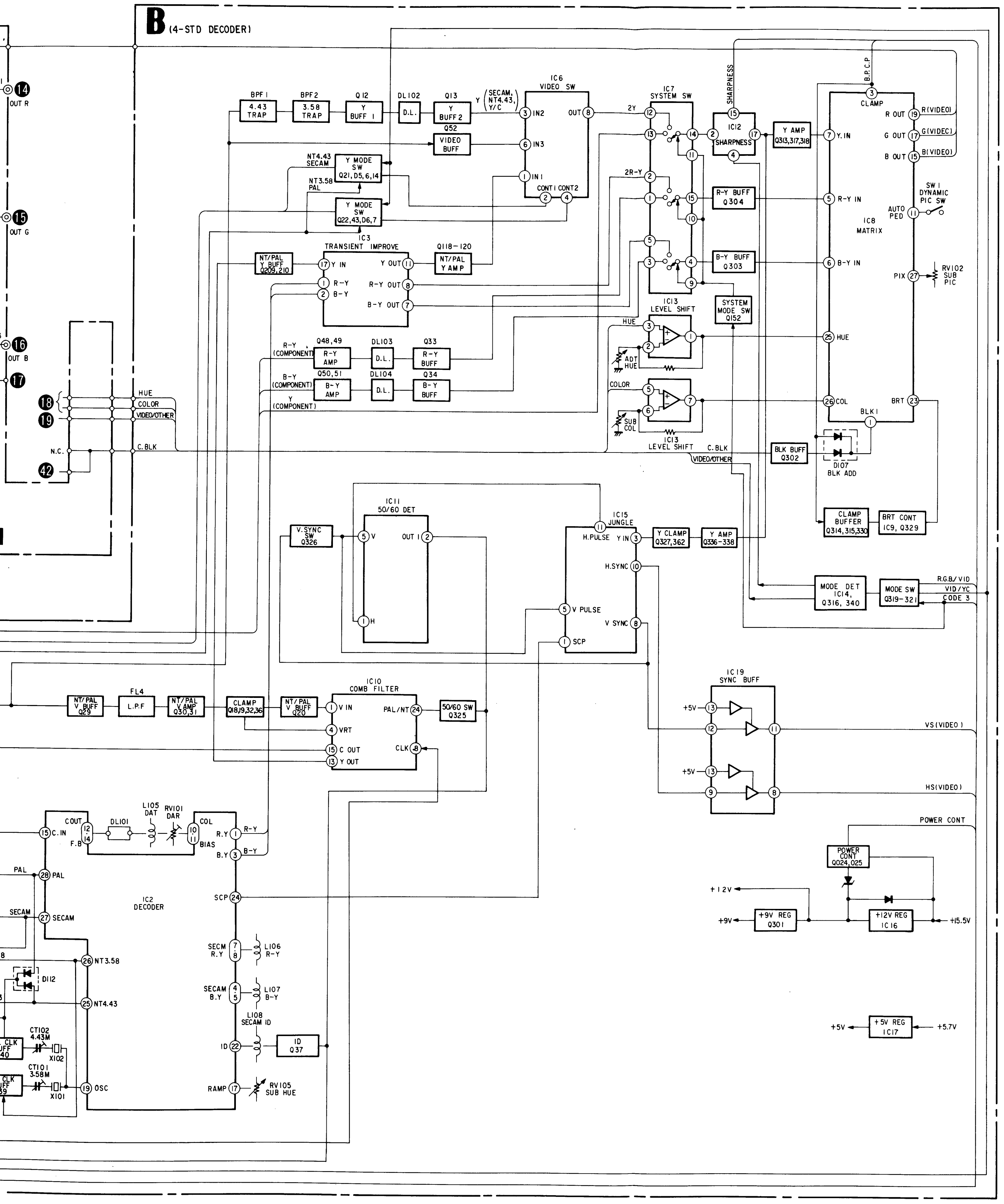
(2)

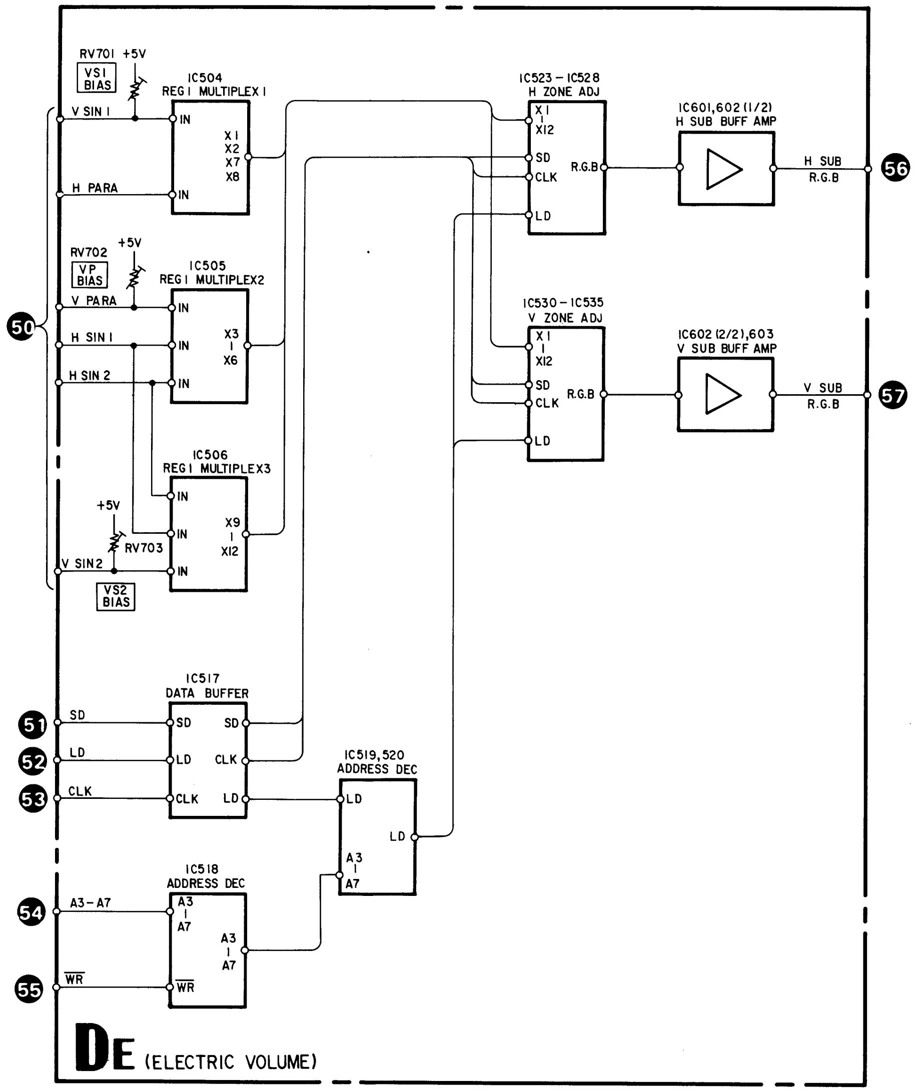

G
AM
Y
DC
B
BM
KB
KA
AB
AA
AC
E
PC
PA
K
IFB-11
IFB-1000

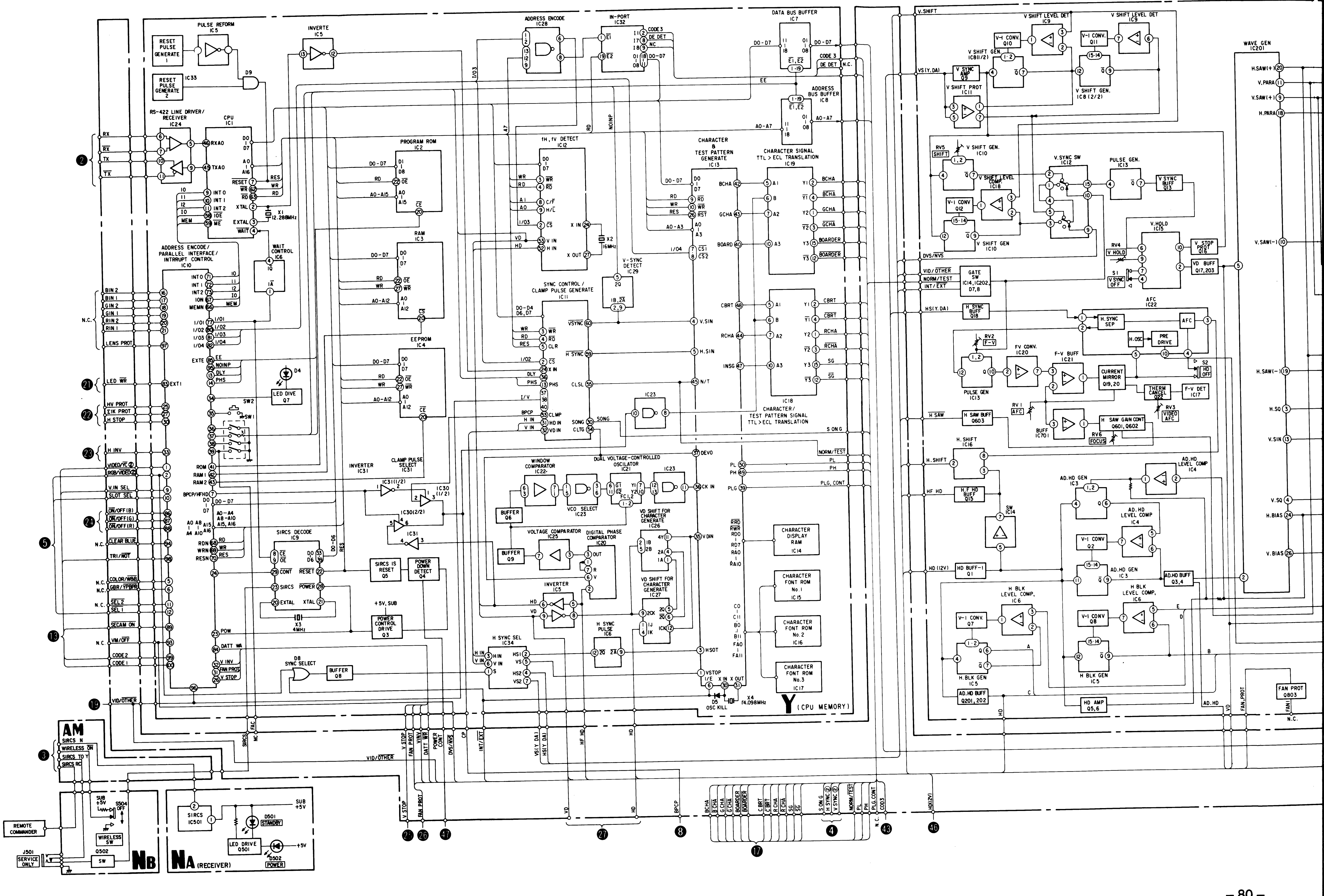
7-2. BLOCK DIAGRAMS

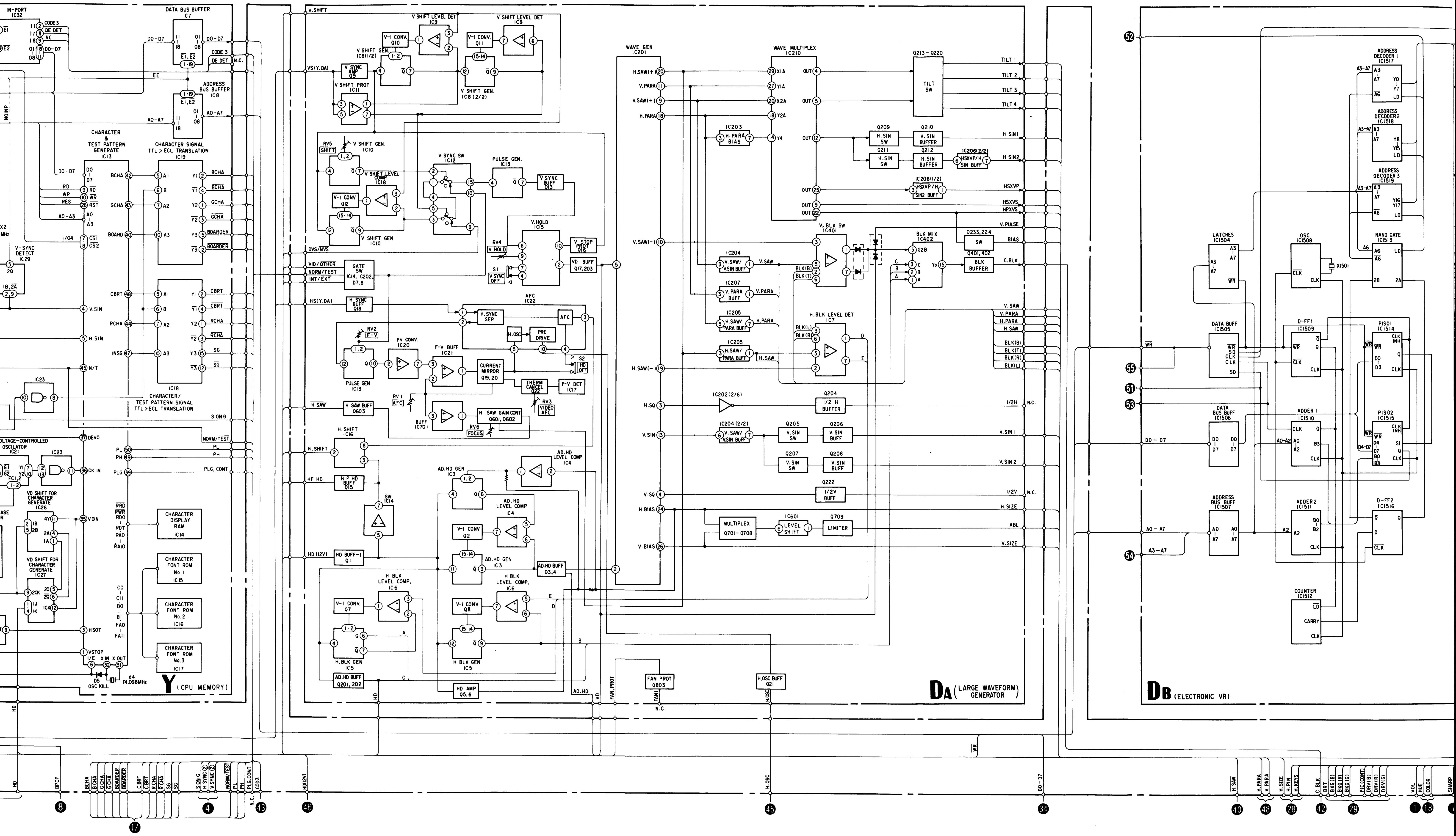

AM
AA
AB
AC
BM
IFB-11
IFB-1000
SW1
SW2
IC1, Q1, 2
SYNC BUFFER
RY4
RY5
RY6
RY1
RY2
RY3
IC3
R AMP
IC4
G AMP
IC5
B AMP
MODE SW IC10
R.G.B. / VIDEO I
VIDEO / YC I
VIDEO / YC O
R.G.B./VIDEO O
VS
HS
R
G
B
R-Y
B-Y
Y
C
C.VIDEO
Q201, 202
AMP
Q203
BUFFER
Q204, 205
Q206
RY201
AUDIO L
AUDIO L(VAR)
AUDIO R
AUDIO R(VAR)
C VIDEO
CONT S IN
CONT S OUT
Q253, 254
INV
Q252
Q265, 266
Q267
Q268, 269 Q258, 259
Q261
Q250, 255
Q251
SIRCS RC
SIRCS TO Y
SIRCS N
WIRELESS ON
SIRCS TO C
J114
AUDIO L,R(VAR)
J221
REMOTE 2
TX
RX
CCQ IN
AUDIO
SIRCS
C VIDEO/YC
R.G.B./VIDEO
VD
HD/ C.SYNC
B/C
G/Y
R/C VIDEO
Q704, 705
SIG.SW IC705
Q706 - Q709
MODE SW
SLOT SEL
AUDIO L
AUDIO R
SIRCS TO C
MODE BUFFER IC706
SIG SW IC705
VIDEO/YC I
R.G.B./VIDEO I
Q701
BUFFER
Q700
IC700
SYNC SW
RY701
RY700
VS(R.G.B.)
HS(R.G.B.)
IC701
B AMP
RY700
B/C(S)
IC703
G AMP
RY701
G/Y(S)
R AMP
RY702
R/C VIDEO
RED
GREEN
BLUE
J4
J5
J6
J31
J32
J33
RED / C.VID
GREEN/Y
BLUE/C
VIDEO
Q651 Q653, 654
R BUFF
Q650
R CLAMP
SIG CLAMP IC410
Q701, Q702, 710
G BUFF
Q700
G CLAMP
Q751, 752 Q755, 757
B BUFF
Q750
B CLAMP
SIG CLAMP IC411
R (VIDEO)
G (VIDEO)
B (VIDEO)
VIDEO IN
RGB IN
IC414 R SIG. SW
IC415 G SIG. SW
IC416 B SIG. SW
CONT. 2
CONT. 1
IN 1
IN 2
CHA IN
IC413 TEST SIG. GEN
OUT(2)
OUT(1)
MODE SW Q539
D652
D653
SW Q656
VIDEO/RGB
SYNC BUFFER IC407
HS(R.G.B.)
VS(R.G.B.)
HS(BB-Y)
S.ON.G
VS(BB-Y)
VID/YC
Q545, 548, 549
MODE SW
MODE BUFFER IC405
HDVS SEL
Q553, 554
IC422, 423, 424 Q552
MODE ENCODER
R.G.B./VIDEO 0
SLOT SEL
SHARPNESS
R.G.B/VIDEO 2
Q403, 405
POWER CONT
IC402
+12V REG
+12V
+15.5V
Q404
IC403
-12V REG
-12V
-15.5V
Q402
-5V REG
-5V
-5.7V
CODE 3
Q541 - Q544
SONG SYNC SEP IC417
HDVS DET
GREEN IN
Q547
MODE OR D634
R.G.B/VID
VID/YC
SLOT SEL
TRI/NOT
SECAM ON
CODE 2
CODE 1
CODE 2 SW Q305, 307
CODE 1 SW Q306, 308
MODE SW D8
PAL
NT4.43
NT3.58
B.P.C.P
Q409
Q406
Q410
Q407
Q411
Q408
S-C
S-Y
IC1 SYSTEM SW-1
Q3
Q9 - 11
VIDEO AMP
Q212
NT/PAL C BUFF2
FL3
LPF
MODE SW Q35
MODE SW Q2
C BUFF Q7
SYSTEM MODE SW Q8, D1, 2
SECAM
NT4.43

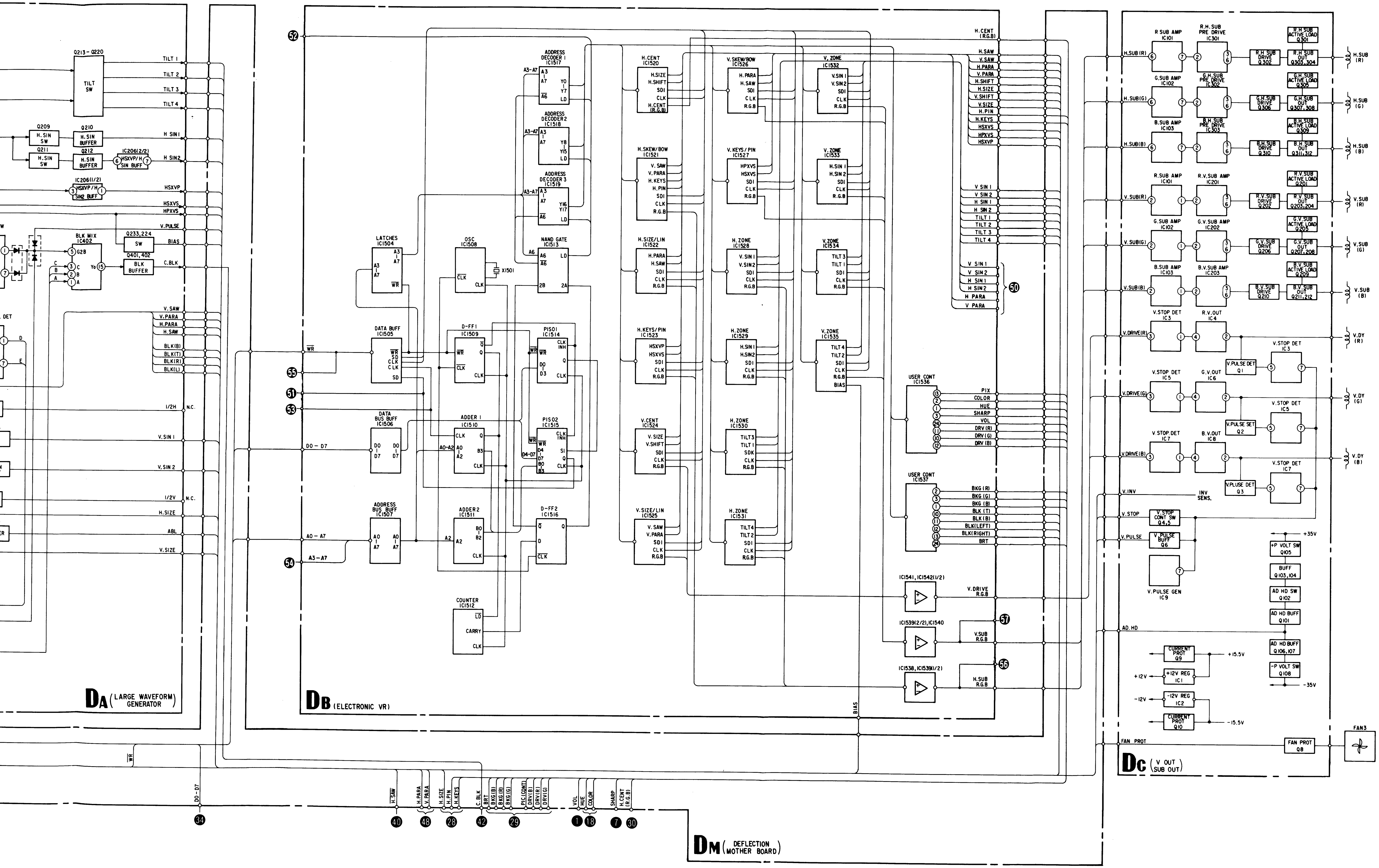

IFB-11
RED
GREEN
BLUE
HS
VS
J114
IFB-1000
VIDEO
Y
C
C VIDEO
CONT S OUT
J4
J5
J6
J31
J32
J33
AM
BM
RED/C.VID
GREEN/Y
BLUE/C
R
G
B
SIG CLAMP IC410
SIG CLAMP IC411
Q651 Q653,654 R BUFF
Q650 R CLAMP
Q701, Q702,710 G BUFF
Q700 G CLAMP
Q751,752 Q755,757 B BUFF
Q750 B CLAMP
R (VIDEO)
G (VIDEO)
B (VIDEO)
IC414 R SIG.SW
IC415 G SIG.SW
IC416 B SIG.SW
VIDEO IN
RGB IN
CONT.2
CONT.1
IN 1
IN 2
CHA IN
OUT
IC418 R AMP
IC419 G AMP
IC420 B AMP
R OUT
G OUT
B OUT
R.CHA
G.CHA
B.CHA
J1
J2
J3
OUT R
OUT G
OUT B
14
15
16
17
18
19
42
N.C.
IC413 TEST SIG. GEN
OUT(2)
OUT(1)
BOARDER
C.BRT
SG
NOR/TEST
PH
PL
MODE SW Q539
D652
D653
VIDEO/RGB
SW Q656
HUE
COLOR
VIDEO/OTHER
C.BLK
B (4-STD DECODER)
BPF 1 4.43 TRAP
BPF 2 3.58 TRAP
Q12 Y BUFF 1
DL102 D.L.
Q13 Y BUFF 2
Q52 VIDEO BUFF
Y (SECAM, NT4.43, Y/C)
IC6 VIDEO SW
IN2
IN3
IN1
CONT1 CONT2
NT4.43 SECAM
NT3.58 PAL
Y MODE SW Q21,D5,6,14
Y MODE SW Q22,43,D6,7
NT/PAL Y BUFF Q209,210
IC3 TRANSIENT IMPROVE
Y IN
R-Y
B-Y
Y OUT
R-Y OUT
B-Y OUT
Q118-120 NT/PAL Y AMP
R-Y (COMPONENT)
B-Y (COMPONENT)
Y (COMPONENT)
Q48,49 R-Y AMP
Q50,51 B-Y AMP
DL103 D.L.
DL104 D.L.
Q33 R-Y BUFF
Q34 B-Y BUFF
IC7 SYSTEM SW
2Y
2R-Y
SHARPNESS
IC12 SHARPNESS
Y AMP Q313,317,318
R-Y BUFF Q304
B-Y BUFF Q303
SYSTEM MODE SW Q152
IC13 LEVEL SHIFT
HUE
ADJ HUE
COLOR
SUB COL
B.P.C.P
CLAMP
IC8 MATRIX
Y IN
R-Y IN
B-Y IN
HUE
COL
BLK 1
BLK BUFF Q302
D107 BLK ADD
CLAMP BUFFER Q314,315,330
V.SYNC SW Q326
IC11 50/60 DET
V
OUT 1
H
IC15 JUNGLE
H.PULSE
Y CLAMP Q327,362
Y AMP Q336-338
H.SYNC
V PULSE
V SYNC
SCP
MODE DET IC14, Q316, 340
IC19 SYNC BUFF
+5V
POWER CONT Q024,025
+12V
+9V
+9V REG Q301
+5V
SYNC BUFFER IC407
HS(B-Y)
S.ON.G
VS(B-Y)
IC422,423,424 Q552
MODE ENCODER
4
Q409 BUFFER
Q410 BUFFER
Q411 BUFFER
Q406 MODE SW
Q407 MODE SW
Q408 MODE SW
VIDEO
S-Y
S-C
IC1 SYSTEM SW-1
A B C
Q3 BUFFER
Q9-11 VIDEO AMP
Q212 NT/PAL C BUFF2
FL3 LPF
Q213 NT/PAL C BUFF1
NT/PAL V BUFF Q29
FL4 L.P.F
NT/PAL V AMP Q30,31
CLAMP Q18,19,32,36
NT/PAL V BUFF Q20
IC10 COMB FILTER
V IN
VRT
C OUT
Y OUT
PAL/NT
CLK
50/60 SW Q325
MODE SW Q35
MODE SW Q2
C BUFF Q7
BELL FILTER L120
SECAM C BUFF Q14
NT/PAL C BUFF Q17
SYSTEM MODE SW Q8,D1,2
SECAM
NT4.43
B/W DET Q23, D3,4,101
PAL
NT3.58
CODE 3
43
5
13
R.G.B./VID
VID/YC
SLOT SEL
TRI/NOT
SECAM ON
CODE 2
CODE 1
CODE 2 SW Q305,307
CODE 1 SW Q306,308
MODE SW D8
SECAM SW Q26-28
IC2 DECODER
COUT
C. IN
F.B
DL101
L105 DAT
RV101 DAR
COL
R.Y
B.Y
BIAS
SCP
SECM R.Y
SECAM B.Y
L106 R-Y
L107 B-Y
L108 SECAM ID
ID Q37
RAMP
RV105 SUB HUE
OSC
D112
Q201,204 PAL/NT CLK SW
Q41 PAL OSC SW
CLK BUFF Q203
CLK BUFF Q204
PAL CLK BUFF Q40
NT CLK BUFF Q39
CT102 4.43M
CT101 3.58M
X102
X101
Q38 NT OSC SW
IC5 CLK GEN.
CLK AMP Q205-207
Q541-Q544 MODE ENCODER
SONG SYNC SEP IC417
HDVS DET
GREEN IN
Q547 MODE SW
MODE OR D634
ONT
CODE 3
B.P.C.P


B (4-STD DECODER)
OUT R
OUT G
OUT B
HUE
COLOR
VIDEO/OTHER
C.BLK
N.C.
BPF 1 4.43 TRAP
BPF 2 3.58 TRAP
Q12 Y BUFF 1
DL102 D.L.
Q13 Y BUFF 2
Q52 VIDEO BUFF
IC6 VIDEO SW
SECAM, NT4.43, Y/C
IN2
IN3
IN1
OUT
CONT1 CONT2
NT4.43 SECAM
NT3.58 PAL
Y MODE SW Q21, D5, 6, 14
Y MODE SW Q22, 43, D6, 7
IC3 TRANSIENT IMPROVE
NT/PAL Y BUFF Q209, 210
Y IN
R-Y
B-Y
Y OUT
R-Y OUT
B-Y OUT
Q118-120 NT/PAL Y AMP
R-Y (COMPONENT)
B-Y (COMPONENT)
Y (COMPONENT)
Q48, 49 R-Y AMP
Q50, 51 B-Y AMP
DL103 D.L.
DL104 D.L.
Q33 R-Y BUFF
Q34 B-Y BUFF
2Y
2R-Y
IC7 SYSTEM SW
SHARPNESS
IC12 SHARPNESS
Y AMP Q313, 317, 318
R-Y BUFF Q304
B-Y BUFF Q303
SYSTEM MODE SW Q152
IC13 LEVEL SHIFT
HUE
ADJ HUE
COLOR
SUB COL
IC13 LEVEL SHIFT
C.BLK
VIDEO/OTHER
BLK BUFF Q302
D107 BLK ADD
B.P.C.P
CLAMP
Y.IN
R-Y IN
B-Y IN
HUE
COL
BLK1
BRT
R OUT
G OUT
B OUT
R(VIDEO)
G(VIDEO)
B(VIDEO)
SW1 DYNAMIC PIC SW
AUTO PED
IC8 MATRIX
PIX
RV102 SUB PIC
CLAMP BUFFER Q314, 315, 330
BRT CONT IC9, Q329
MODE DET IC14, Q316, 340
MODE SW Q319-321
RGB/VID
VID/YC
CODE 3
V.SYNC SW Q326
IC11 50/60 DET
V
H
OUT 1
IC15 JUNGLE
H.PULSE
Y IN
H.SYNC
V PULSE
V SYNC
SCP
Y CLAMP Q327, 362
Y AMP Q336-338
IC19 SYNC BUFF
+5V
VS(VIDEO)
HS(VIDEO)
NT/PAL Y BUFF Q29
FL4 L.P.F
NT/PAL V AMP Q30, 31
CLAMP Q18, 19, 32, 36
NT/PAL V BUFF Q20
IC10 COMB FILTER
V IN
VRT
C OUT
Y OUT
PAL/NT
CLK
50/60 SW Q325
POWER CONT
POWER CONT Q024, 025
+12V
+9V
+9V REG Q301
+12V REG IC16
+15.5V
+5V
+5V REG IC17
+5.7V
COUT
DL101
L105 DAT
RV101 DAR
COL
C.IN
F.B
BIAS
R.Y
B.Y
R-Y
B-Y
PAL
SECAM
IC2 DECODER
SCP
NT3.58
NT4.43
D112
SECM R.Y
L106 R-Y
SECAM B.Y
L107 B-Y
L108 SECAM ID
ID
ID Q37
CT102 4.43M
X102
CT101 3.58M
X101
OSC
RAMP
RV105 SUB HUE
CLK BUFF


RV701 +5V
VS1 BIAS
V SIN 1
H PARA
IC504 REG1 MULTIPLEX1
X1 X2 X7 X8
RV702 +5V
VP BIAS
V PARA
H SIN 1
H SIN 2
IC505 REG1 MULTIPLEX2
X3 X6
IC506 REG1 MULTIPLEX3
+5V
RV703
V SIN2
X9 X12
VS2 BIAS
IC523-IC528 H ZONE ADJ
X1 X12
SD
CLK
LD
R.G.B
IC601, 602 (1/2) H SUB BUFF AMP
H SUB R.G.B
IC530-IC535 V ZONE ADJ
IC602 (2/2), 603 V SUB BUFF AMP
V SUB R.G.B
IC517 DATA BUFFER
SD
LD
CLK
IC519, 520 ADDRESS DEC
A3 A7
IC518 ADDRESS DEC
A3-A7
WR
DE (ELECTRIC VOLUME)


PULSE REFORM IC5
RESET PULSE GENERATE 1
RESET PULSE GENERATE 2
IC33
D9
INVERTE IC5
RS-422 LINE DRIVER/RECEIVER IC24
CPU IC1
RX
TX
X1 12.288MHz
WAIT CONTROL IC6
ADDRESS ENCODE/PARALLEL INTERFACE/INTRRUPT CONTROL IC10
PROGRAM ROM IC2
RAM IC3
EEPROM IC4
LED DIVE Q7
D4
SW1
SW2
ADDRESS ENCODE IC28
IN-PORT IC32
1H, 1V DETECT IC12
X2 16MHz
V-SYNC DETECT IC29
SYNC CONTROL / CLAMP PULSE GENERATE IC11
IC23
WINDOW COMPARATOR IC22
DUAL VOLTAGE-CONTROLLED OSCILLATOR IC21
VCO SELECT IC23
BUFFER Q6
VOLTAGE COMPARATOR IC25
DIGITAL PHASE COMPARATOR IC20
BUFFER Q9
VD SHIFT FOR CHARACTER GENERATE IC26
VD SHIFT FOR CHARACTER GENERATE IC27
INVERTER IC5
H SYNC SEL IC34
H SYNC PULSE IC6
X4 14.098MHz
D5 OSC KILL
INVERTER IC31
CLAMP PULSE SELECT IC31
IC30 (1/2)
IC30(2/2)
SIRCS DECODE IC9
X3 4MHz
SIRCS IS RESET Q5
POWER DOWN DETECT Q4
+5V, SUB
POWER CONTROL DRIVE Q3
D8 SYNC SELECT
BUFFER Q8
DATA BUS BUFFER IC7
ADDRESS BUS BUFFER IC8
CHARACTER & TEST PATTERN GENERATE IC13
CHARACTER SIGNAL TTL > ECL TRANSLATION IC19
IC18 CHARACTER/TEST PATTERN SIGNAL TTL > ECL TRANSLATION
CHARACTER DISPLAY RAM IC14
CHARACTER FONT ROM No.1 IC15
CHARACTER FONT ROM No.2 IC16
CHARACTER FONT ROM No.3 IC17
Y (CPU MEMORY)
AM
SIRCS N
WIRELESS ON
SIRCS TO Y
SIRCS RC
REMOTE COMMANDER
J501 SERVICE ONLY
SUB +5V
S504 OFF
WIRELESS SW
Q502 SW
NB
SIRCS IC501
D501 STANDBY
LED DRIVE Q501
D502 POWER
+5V
NA (RECEIVER)
V.SHIFT
V SHIFT LEVEL DET IC9
V-I CONV. Q10
V-I CONV. Q11
V SHIFT GEN. IC8(1/2)
V SHIFT GEN. IC8 (2/2)
V SYNC AMP Q9
V SHIFT PROT IC11
RV5 SHIFT
V SHIFT GEN. IC10
V SHIFT LEVEL COMP. IC18
V.SYNC SW IC12
PULSE GEN. IC13
V SYNC BUFF Q13
V-I CONV Q12
V.HOLD IC15
RV4 V HOLD
V STOP PROT Q16
VD BUFF Q17,203
S1 V SYNC OFF
GATE SW IC14, IC202, D7,8
H SYNC BUFF Q18
AFC IC22
H. SYNC SEP
H. OSC
PRE DRIVE
S2 HD OFF
RV2 F-V
FV CONV. IC20
F-V BUFF IC21
PULSE GEN IC13
CURRENT MIRROR Q19,20
THERM CANCEL Q22
F-V DET IC17
RV1 AFC
RV3 VIDEO AFC
H SAW BUFF Q603
BUFF IC701
H SAW GAIN CONT Q601, Q602
RV6 FOCUS
H. SHIFT IC16
H.F HD BUFF Q15
SW IC14
AD.HD LEVEL COMP IC4
AD.HD GEN IC3
AD.HD LEVEL COMP IC4
V-I CONV Q2
AD.HD GEN IC3
AD.HD BUFF Q3,4
HD BUFF-1 Q1
H BLK LEVEL COMP. IC6
V-I CONV. Q7
V-I CONV Q8
H.BLK GEN IC5
H BLK GEN IC5
AD.HD BUFF Q201, 202
HD AMP Q5,6
FAN PROT Q803
WAVE GEN IC201
H.SAW(+)
V.PARA
V.SAW(+)
H.PARA
V.SAW(-)
H.SAW(-)
H.SO
V.SIN
V.SQ
H.BIAS
V.BIAS
N.C.
VID/OTHER
V STOP
FAN PROT
VINV
DATT WR
POWER CONT
DVS/NVS
CP
INT/EXT
VS(Y.DA)
HS(Y.DA)
HF HD
HD
VD
BPCP
HD(12V)
2
3
4
5
8
13
17
19
21
22
23
24
25
26
27
43
46
47


IN-PORT IC32
DATA BUS BUFFER IC7
ADDRESS BUS BUFFER IC8
CHARACTER & TEST PATTERN GENERATE IC13
CHARACTER SIGNAL TTL > ECL TRANSLATION IC19
CHARACTER/ TEST PATTERN SIGNAL TTL > ECL TRANSLATION IC18
V-SYNC DETECT IC29
IC23
VOLTAGE-CONTROLLED OSCILLATOR IC21
VD SHIFT FOR CHARACTER GENERATE IC26
VD SHIFT FOR CHARACTER GENERATE IC27
CHARACTER DISPLAY RAM IC14
CHARACTER FONT ROM No.1 IC15
CHARACTER FONT ROM No.2 IC16
CHARACTER FONT ROM No.3 IC17
D5 OSC KILL
X4 14.098MHz
Y (CPU MEMORY)
V SHIFT LEVEL DET IC9
V-I CONV. Q10
V-I CONV. Q11
V SHIFT GEN. IC8(1/2)
V SHIFT GEN. IC8(2/2)
V SYNC AMP Q9
V SHIFT PROT IC11
RV5 SHIFT
V SHIFT GEN. IC10
V.SYNC SW IC12
V SHIFT LEVEL COMP. IC18
V-I CONV Q12
PULSE GEN. IC13
V SYNC BUFF Q13
V.HOLD IC15
RV4 V HOLD
S1 V SYNC OFF
V STOP PROT Q16
VD BUFF Q17,203
GATE SW IC14, IC202, D7,8
H SYNC BUFF Q18
AFC IC22
H. SYNC SEP
H.OSC
PRE DRIVE
RV2 F-V
FV CONV. IC20
F-V BUFF IC21
PULSE GEN IC13
CURRENT MIRROR Q19,20
THERM CANCEL Q22
F-V DET IC17
S2 HD OFF
RV1 AFC
RV3 VIDEO AFC
H SAW BUFF Q603
BUFF IC701
H SAW GAIN CONT Q601, Q602
RV6 FOCUS
H. SHIFT IC16
H.P HD BUFF Q15
SW IC14
AD.HD GEN IC3
AD.HD LEVEL COMP IC4
V-I CONV Q2
HD BUFF-I Q1
AD.HD BUFF Q3,4
H BLK LEVEL COMP. IC6
V-I CONV. Q7
V-I CONV Q8
H.BLK GEN IC5
H BLK GEN IC5
AD.HD BUFF Q201, 202
HD AMP Q5,6
FAN PROT Q803
H.OSC BUFF Q21
WAVE GEN IC201
WAVE MULTIPLEX IC210
TILT SW Q213 - Q220
IC203 H. PARA BIAS
Q209 H.SIN SW
Q210 H.SIN BUFFER
Q211 H.SIN SW
Q212 H.SIN BUFFER
IC206(2/2) HSXVP/H SIN BUFF
IC206(1/2) HSXVP/H SIN2 BUFF
V. BLK SW IC401
BLK MIX IC402
Q233,224 SW
Q401,402 BLK BUFFER
IC204 V.SAW/ V.SIN BUFF
IC207 V.PARA BUFF
IC205 H.SAW/ PARA BUFF
H.BLK LEVEL DET IC7
IC202(2/6)
Q204 1/2 H BUFFER
IC204(2/2) V.SAW/ V.SIN BUFF
Q205 V.SIN SW
Q206 V.SIN BUFF
Q207 V.SIN SW
Q208 V.SIN BUFF
Q222 1/2V BUFF
MULTIPLEX Q701-Q708
IC601 LEVEL SHIFT
Q709 LIMITER
TILT 1
TILT 2
TILT 3
TILT 4
H SIN1
H SIN2
HSXVP
HSXVS
HPXVS
V.PULSE
BIAS
C.BLK
V.SAW
V.PARA
H.PARA
H.SAW
BLK(B)
BLK(T)
BLK(R)
BLK(L)
1/2H
V.SIN 1
V.SIN 2
1/2V
H.SIZE
ABL
V.SIZE
DA (LARGE WAVEFORM GENERATOR)
ADDRESS DECODER 1 IC1517
ADDRESS DECODER2 IC1518
ADDRESS DECODER 3 IC1519
LATCHES IC1504
OSC IC1508
X1501
NAND GATE IC1513
DATA BUFF IC1505
D-FF1 IC1509
PISO1 IC1514
DATA BUS BUFF IC1506
ADDER 1 IC1510
PISO2 IC1515
ADDRESS BUS BUFF IC1507
ADDER2 IC1511
D-FF2 IC1516
COUNTER IC1512
DB (ELECTRONIC VR)
HD
BPCP
BCHA
B CHA
GCHA
G CHA
BOARDER
BOARDER
CBRT
C BRT
RCHA
R CHA
SG
SG
SONG
H SYNC ②
V SYNC ②
NORM/TEST
PL
PH
PLG CONT
CODE3
N.C.
HD(12V)
H.OSC
D0-D7
WR
H.SAW
H.PARA
V.PARA
H.SIZE
H.PIN
H.KEYS
C.BLK
BRT(B)
BKG(R)
BKG(G)
PIC(CONT)
DRV(B)
DRV(G)
VOL
HUE
COLOR
SHARP
⑧
⑰
④
㊸
㊻
㊺
㉞
㊵
㊽
㉘
㊷
㉙
❶
⑱
㊿
(51)
(52)
(53)
(54)
(55)


DA (LARGE WAVEFORM GENERATOR)
DB (ELECTRONIC VR)
DC (V OUT SUB OUT)
DM (DEFLECTION MOTHER BOARD)
Q213 - Q220 TILT SW
TILT 1
TILT 2
TILT 3
TILT 4
Q209 H.SIN SW
Q210 H.SIN BUFFER
Q211 H.SIN SW
Q212 H.SIN BUFFER
IC206(2/2) HSXVP/H SIN BUFF
IC206(1/2) HSXVP/H SIN2 BUFF
H SIN1
H SIN2
HSXVP
HSXVS
HPXVS
V.PULSE
BLK MIX IC402
Q233,224 SW
Q401,402 BLK BUFFER
BIAS
C.BLK
V.SAW
V.PARA
H.PARA
H.SAW
BLK(B)
BLK(T)
BLK(R)
BLK(L)
1/2H
N.C.
V.SIN 1
V.SIN 2
1/2V
H.SIZE
ABL
V.SIZE
ADDRESS DECODER 1 IC1517
ADDRESS DECODER 2 IC1518
ADDRESS DECODER 3 IC1519
NAND GATE IC1513
LATCHES IC1504
OSC IC1508
X1501
DATA BUFF IC1505
D-FF1 IC1509
PISO1 IC1514
DATA BUS BUFF IC1506
ADDER 1 IC1510
PISO2 IC1515
ADDRESS BUS BUFF IC1507
ADDER 2 IC1511
D-FF2 IC1516
COUNTER IC1512
WR
D0 - D7
A0 - A7
A3 - A7
H.CENT IC1520
H.SKEW/BOW IC1521
H.SIZE/LIN IC1522
H.KEYS/PIN IC1523
V.CENT IC1524
V.SIZE/LIN IC1525
V.SKEW/BOW IC1526
V.KEYS/PIN IC1527
H.ZONE IC1528
H.ZONE IC1529
H.ZONE IC1530
H.ZONE IC1531
V.ZONE IC1532
V.ZONE IC1533
V.ZONE IC1534
V.ZONE IC1535
USER CONT IC1536
PIX
COLOR
HUE
SHARP
VOL
DRV(R)
DRV(G)
DRV(B)
USER CONT IC1537
BKG(R)
BKG(G)
BKG(B)
BLK(T)
BLK(B)
BLK(LEFT)
BLK(RIGHT)
BRT
IC1541, IC1542(1/2)
V.DRIVE R.G.B
IC1539(2/2),IC1540
V.SUB R.G.B
IC1538, IC1539(1/2)
H.SUB R.G.B
H.CENT (R.G.B)
V SIN 1
V SIN 2
H SIN 1
H SIN 2
H PARA
V PARA
R SUB AMP IC101
R.H.SUB PRE DRIVE IC301
R.H.SUB DRIVE Q302
R.H.SUB ACTIVE LOAD Q301
R.H.SUB OUT Q303,304
G.SUB AMP IC102
G.H.SUB PRE DRIVE IC302
G.H.SUB DRIVE Q306
G.H.SUB ACTIVE LOAD Q305
G.H.SUB OUT Q307,308
B.SUB AMP IC103
B.H.SUB PRE DRIVE IC303
B.H.SUB DRIVE Q310
B.H.SUB ACTIVE LOAD Q309
B.H.SUB OUT Q311,312
R.V.SUB AMP IC201
R.V.SUB DRIVE Q202
R.V.SUB ACTIVE LOAD Q201
R.V.SUB OUT Q203,204
G.V.SUB AMP IC202
G.V.SUB DRIVE Q206
G.V.SUB ACTIVE LOAD Q205
G.V.SUB OUT Q207,208
B.V.SUB AMP IC203
B.V.SUB DRIVE Q210
B.V.SUB ACTIVE LOAD Q209
B.V.SUB OUT Q211,212
H.SUB (R)
H.SUB (G)
H.SUB (B)
V.SUB (R)
V.SUB (G)
V.SUB (B)
V.STOP DET IC3
R.V.OUT IC4
V.STOP DET IC5
G.V.OUT IC6
V.STOP DET IC7
B.V.OUT IC8
V.PULSE DET Q1
V.PULSE SET Q2
V.PULSE DET Q3
V.DY (R)
V.DY (G)
V.DY (B)
V.INV
INV SENS.
V.STOP
V.STOP CONT SW Q4,5
V.PULSE
V.PULSE BUFF Q6
V.PULSE GEN IC9
+P VOLT SW Q105
BUFF Q103,104
AD HD SW Q102
AD HD BUFF Q101
AD HD BUFF Q106,107
-P VOLT SW Q108
+35V
-35V
AD.HD
CURRENT PROT Q9
+12V REG IC1
-12V REG IC2
CURRENT PROT Q10
+15.5V
-15.5V
+12V
-12V
FAN PROT
FAN PROT Q8
FAN3
(34)
(40)
(48)
(28)
(42)
(29)
(1)
(18)
(7)
(30)
(50)
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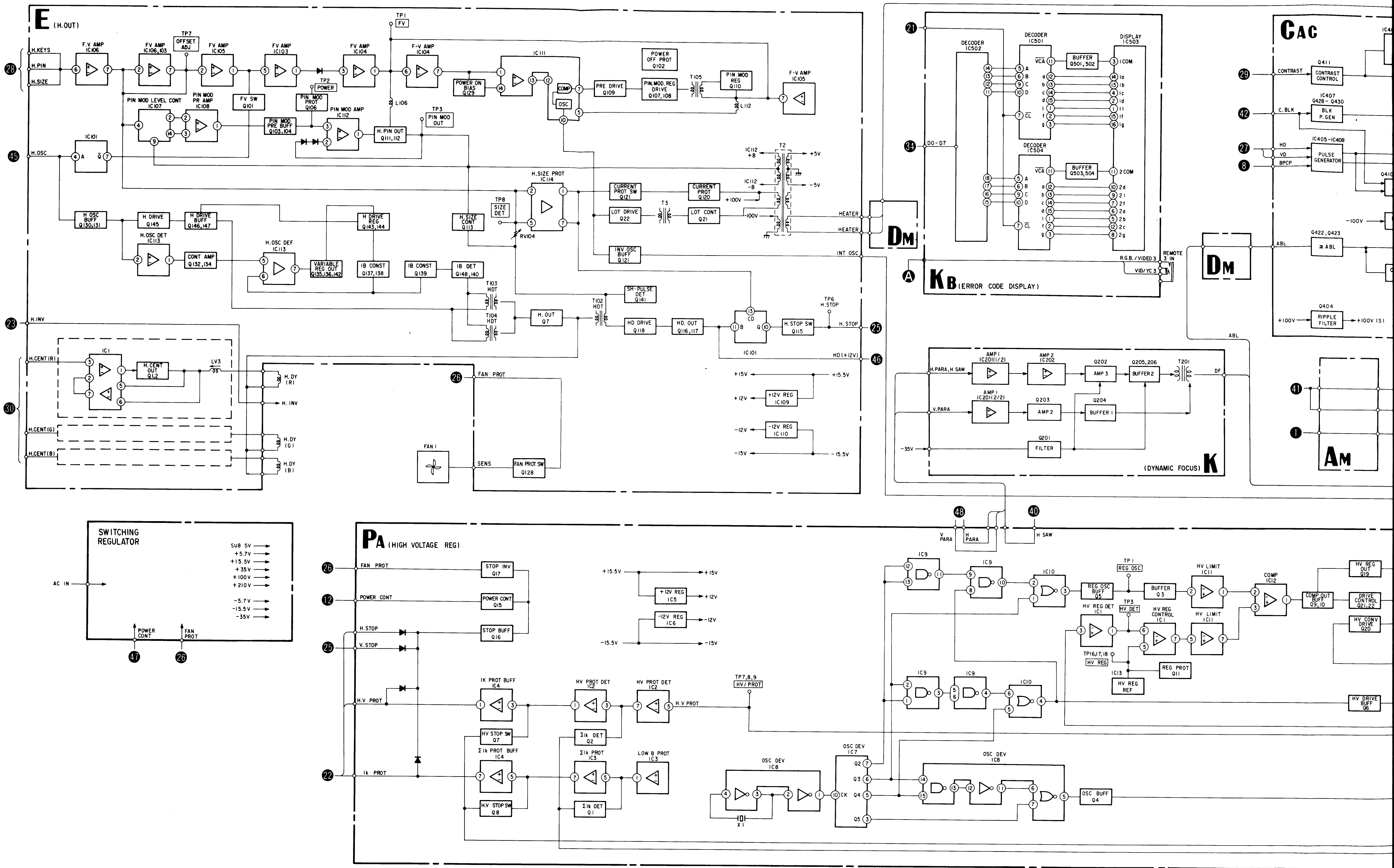
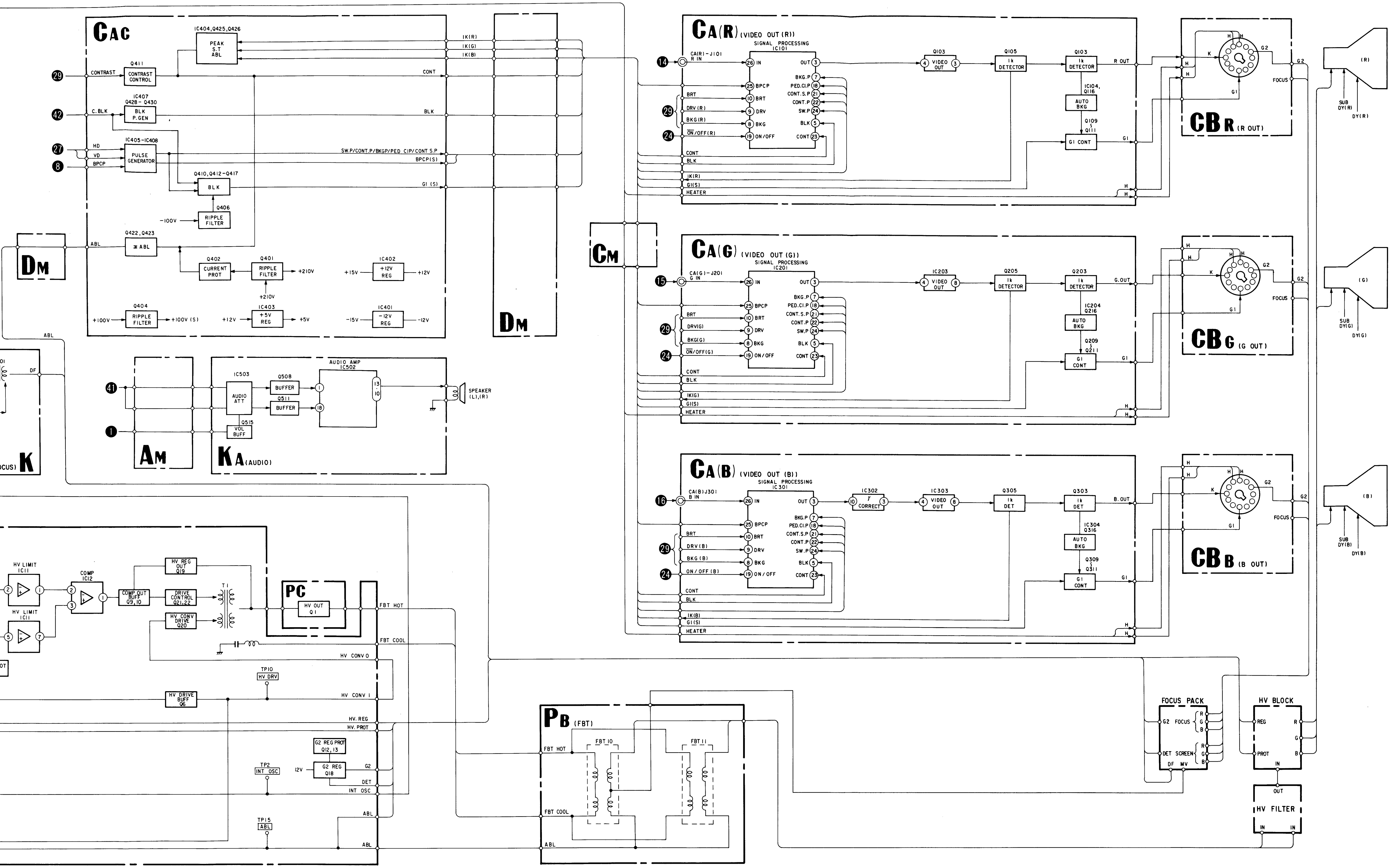
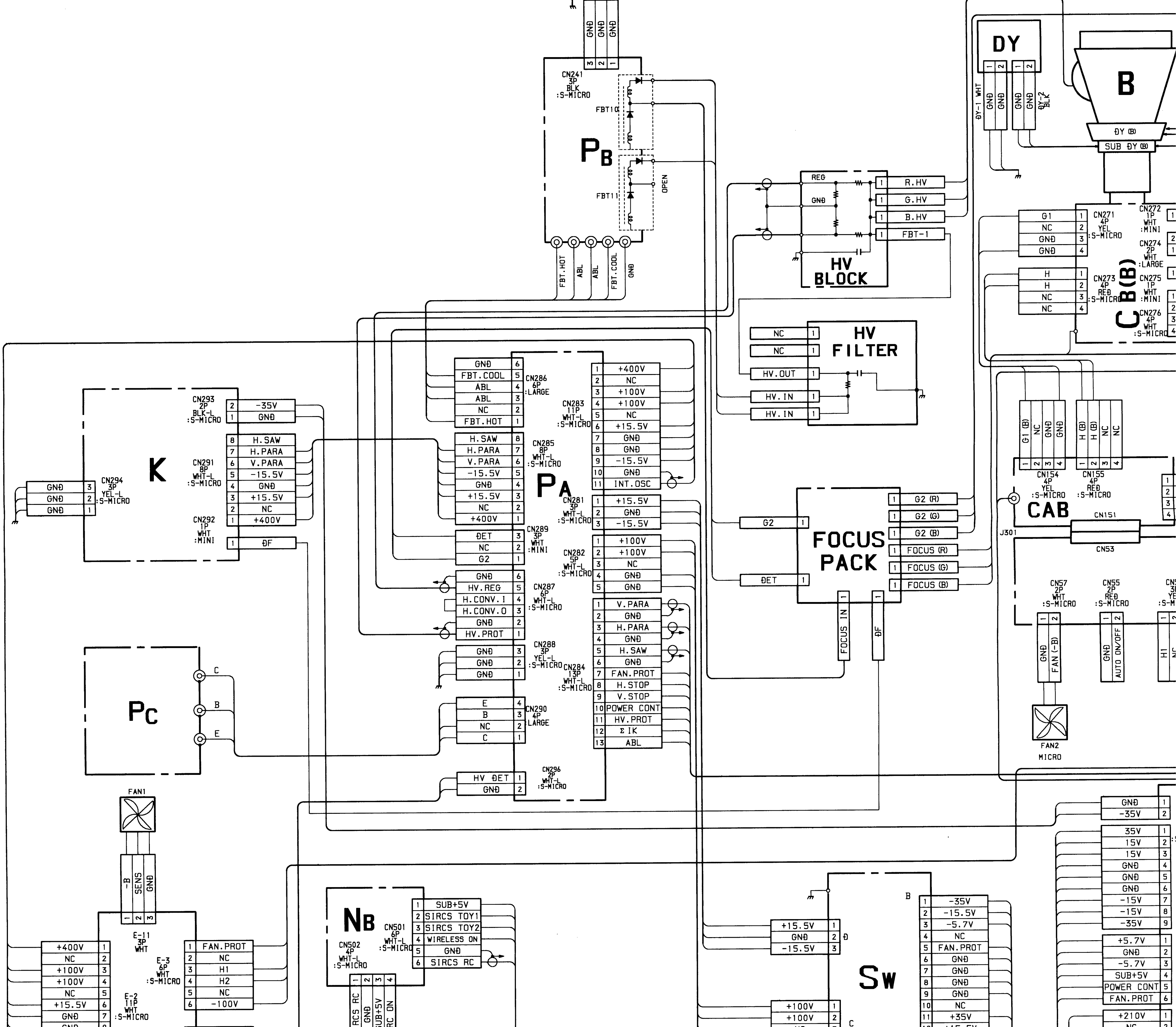
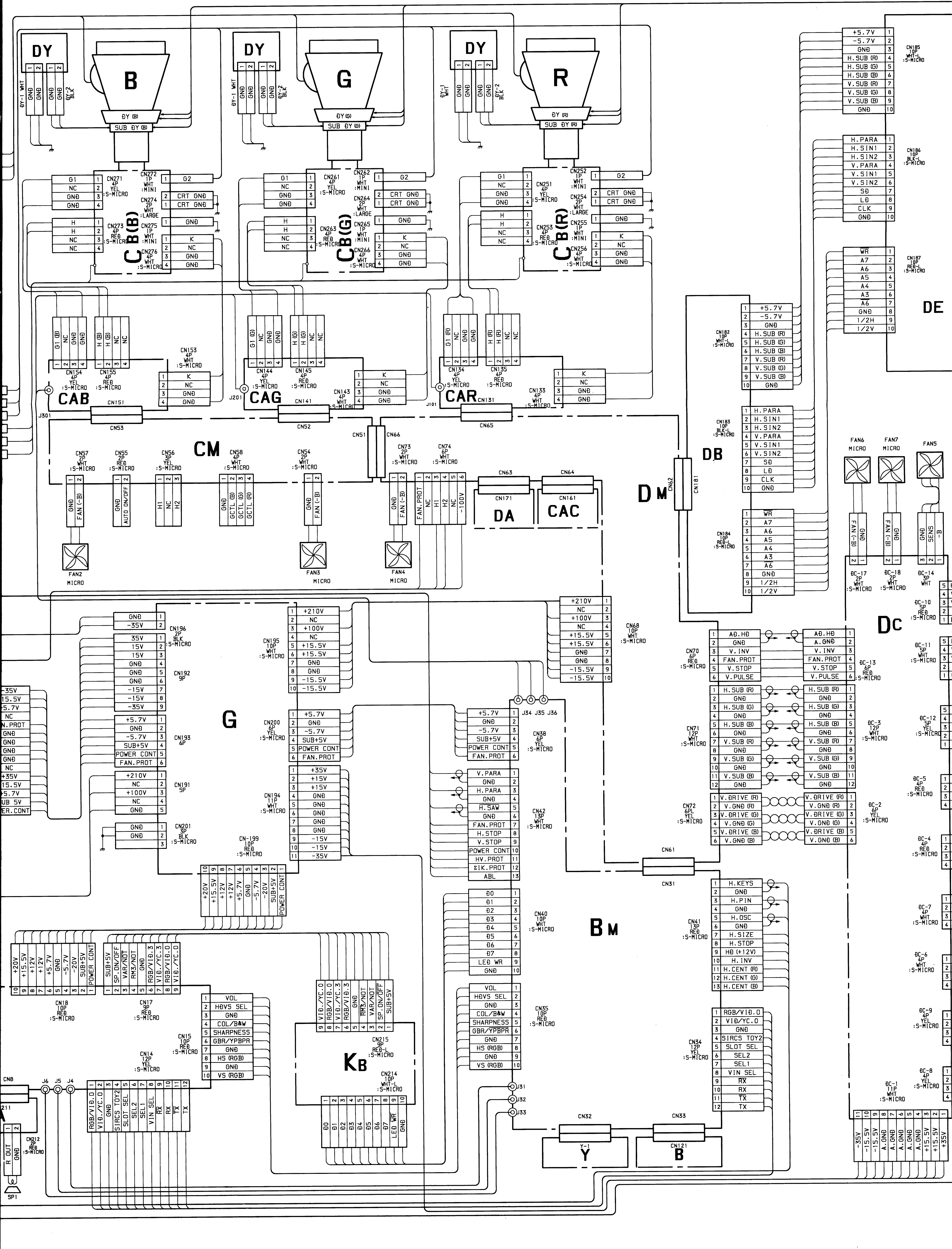
(54)
(55)
(56)
(57)

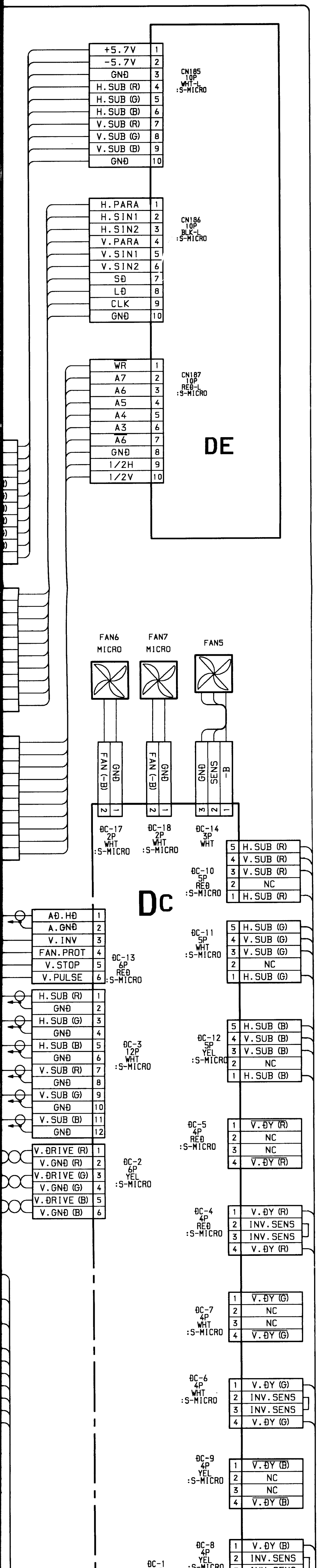

E (H.OUT)
H.KEYS
H.PIN
H.SIZE
F.V AMP IC106
TP7 OFFSET ADJ
FV AMP IC106,103
FV AMP IC105
FV AMP IC103
FV AMP IC104
TP1 FV
F-V AMP IC104
IC111
POWER OFF PROT Q102
PIN MOD REG Q110
F-V AMP IC105
T105
L112
PIN MOD LEVEL CONT IC107
PIN MOD PR AMP IC108
FV SW Q101
TP2 POWER
PIN MOD PROT Q106
PIN MOD AMP IC112
PIN MOD PRE BUFF Q103,104
L106
TP3 PIN MOD OUT
H.PIN OUT Q111,112
POWER ON BIAS Q129
COMP
OSC
PRE DRIVE Q109
PIN.MOD.REG DRIVE Q107,108
H.OSC
IC101
H OSC BUFF Q130,131
H DRIVE Q145
H DRIVE BUFF Q146,147
H.OSC DET IC113
CONT AMP Q132,134
H.OSC DEF IC113
VARIABLE REG. OUT Q135,136,142
H DRIVE REG Q143,144
IB CONST Q137,138
IB CONST Q139
IB DET Q148,140
H.SIZE CONT Q113
TP8 SIZE DET
H.SIZE PROT IC114
RV104
CURRENT PROT SW Q121
CURRENT PROT Q120
LOT DRIVE Q22
T3
LOT CONT Q21
INV OSC BUFF Q121
IC112 +B
IC112 -B
T2
+5V
-5V
+100V
-100V
HEATER
HEATER
INT OSC
T103 HDT
T104 HDT
SH-PULSE DET Q141
T102 HDT
H. OUT Q7
HD DRIVE Q118
HD. OUT Q116,117
TP6 H.STOP
H.STOP SW Q115
H. STOP
IC101
HD (+12V)
H.INV
H.CENT (R)
IC1
H.CENT OUT Q1,2
LV3
H.DY (R)
H. INV
H.CENT (G)
H.DY (G)
H.CENT (B)
H.DY (B)
FAN PROT
FAN 1
SENS
FAN PROT SW Q128
+15V
+15.5V
+12V
+12V REG IC109
-12V
-12V REG IC 110
-15V
-15.5V
DM
DECODER IC502
DECODER IC501
BUFFER Q501,502
DISPLAY IC503
VCA
COM
DECODER IC504
BUFFER Q503,504
2 COM
D0 - D7
R.G.B. / VIDEO 3
VID/YC 3
REMOTE 3 IN
KB (ERROR CODE DISPLAY)
DM
CAC
CONTRAST
Q411 CONTRAST CONTROL
C. BLK
IC407 Q428 - Q430 BLK P. GEN
HD
VD
BPCP
IC405 - IC408 PULSE GENERATOR
-100V
ABL
Q422, Q423 ≡ ABL
Q404 RIPPLE FILTER
+100V
+100V (S)
ABL
H.PARA, H SAW
AMP 1 IC201(1/2)
AMP 2 IC202
Q202 AMP 3
Q205,206 BUFFER 2
T201
DF
V.PARA
AMP 1 IC201(2/2)
Q203 AMP 2
Q204 BUFFER 1
Q201 FILTER
-35V
(DYNAMIC FOCUS) K
AM
SWITCHING REGULATOR
AC IN
SUB 5V
+5.7V
+15.5V
+35V
+100V
+210V
-5.7V
-15.5V
-35V
POWER CONT
FAN PROT
V PARA
H PARA
H SAW
PA (HIGH VOLTAGE REG)
FAN PROT
POWER CONT
H.STOP
V. STOP
H.V PROT
Ik PROT
STOP INV Q17
POWER CONT Q15
STOP BUFF Q16
+15.5V
+15V
+12V REG IC5
+12V
-12V REG IC6
-12V
-15.5V
-15V
IK PROT BUFF IC4
HV PROT DET IC2
HV PROT DET IC2
H.V PROT
TP7,8,9 HV/PROT
HV STOP SW Q7
Σ Ik PROT BUFF IC4
Σ Ik DET Q2
Σ Ik PROT IC3
LOW B PROT IC3
H.V STOP SW Q8
Σ Ik DET Q1
IC9
IC9
IC10
TP1 REG OSC
REG OSC BUFF Q5
BUFFER Q3
HV LIMIT IC11
COMP IC12
COMP OUT BUFF Q9,10
HV REG OUT Q19
DRIVE CONTROL Q21,22
HV CONV DRIVE Q20
HV REG DET IC1
TP3 HV DET
HV REG CONTROL IC1
HV LIMIT IC11
TP16,17,18 HV REG
IC13
REG PROT Q11
HV REG REF
IC9
IC9
IC10
HV DRIVE BUFF Q6
OSC DEV IC7
OSC DEV IC8
OSC DEV IC8
X1
CK
Q2
Q3
Q4
Q5
OSC BUFF Q4


CAC
IC404,Q425,Q426
PEAK S.T ABL
Q411
CONTRAST
CONTRAST CONTROL
IC407 Q428-Q430
C.BLK
BLK P.GEN
IC405-IC408
HD
VD
BPCP
PULSE GENERATOR
Q410,Q412-Q417
BLK
Q406
RIPPLE FILTER
-100V
Q422,Q423
ABL
Q402
CURRENT PROT
Q401
RIPPLE FILTER
+210V
IC402
+12V REG
+15V
+12V
Q404
+100V
+100V (S)
IC403
+5V REG
+5V
IC401
-12V REG
-15V
-12V
IK(R)
IK(G)
IK(B)
CONT
BLK
SW.P/CONT.P/BKGP/PED CIP/CONT S.P
BPCP(S)
GI (S)
DM
CM
DF
ABL
IC503
AUDIO ATT
Q508
BUFFER
Q511
BUFFER
Q515
VOL BUFF
AUDIO AMP IC502
SPEAKER (L),(R)
AM
KA (AUDIO)
K
CA(R) (VIDEO OUT (R))
SIGNAL PROCESSING IC101
CA(R)-J101 R IN
IN
BPCP
BRT
DRV
BKG
ON/OFF
OUT
BKG.P
PED.CLP
CONT.S.P
CONT.P
SW.P
BLK
CONT
DRV (R)
BKG (R)
ON/OFF (R)
HEATER
Q103
VIDEO OUT
Q105
Ik DETECTOR
Q103
Ik DETECTOR
IC104, Q116
AUTO BKG
Q109 ~ Q111
GI CONT
R OUT
GI
CBR (R OUT)
G2
FOCUS
K
H
CA(G) (VIDEO OUT (G))
SIGNAL PROCESSING IC201
CA(G)-J201 G IN
IC203
VIDEO OUT
Q205
Ik DETECTOR
Q203
Ik DETECTOR
IC204 Q216
AUTO BKG
Q209 ~ Q211
GI CONT
G.OUT
DRV(G)
BKG(G)
ON/OFF(G)
IK(G)
GI(S)
CBG (G OUT)
CA(B) (VIDEO OUT (B))
SIGNAL PROCESSING IC301
CA(B)J301 B IN
IC302
T CORRECT
IC303
VIDEO OUT
Q305
Ik DET
Q303
Ik DET
IC304 Q316
AUTO BKG
Q309 ~ Q311
GI CONT
B. OUT
DRV (B)
BKG (B)
ON/OFF (B)
IK(B)
CBB (B OUT)
(R)
(G)
(B)
SUB DY(R)
DY(R)
SUB DY(G)
DY(G)
SUB DY(B)
DY(B)
HV LIMIT IC11
COMP IC12
COMP OUT BUFF Q9,10
HV REG OUT Q19
DRIVE CONTROL Q21,22
HV CONV DRIVE Q20
T1
PC
HV OUT Q1
FBT HOT
FBT COOL
HV CONV O
TP10 HV DRV
HV DRIVE BUFF Q6
HV CONV I
HV. REG
HV. PROT
G2 REG PROT Q12,13
G2 REG Q18
12V
G2
DET
INT OSC
TP2 INT OSC
TP15 ABL
ABL
PB (FBT)
FBT 10
FBT 11
FOCUS PACK
G2
FOCUS
DET
SCREEN
DF
MV
R
G
B
HV BLOCK
REG
PROT
IN
OUT
HV FILTER

7-3. FRAME SCHEMATIC DIAGRAM


PB
CN241 3P BLK :S-MICRO
GND
GND
GND
FBT10
FBT11
OPEN
FBT.HOT
ABL
ABL
FBT.COOL
GND
DY
DY-1 WHT
DY-2 BLK
B
DY (B)
SUB DY (B)
REG
R.HV
G.HV
B.HV
FBT-1
HV BLOCK
G1
NC
H
CN271 4P YEL :S-MICRO
CN272 1P WHT :MINI
CN274 2P WHT :LARGE
CN273 4P RED :S-MICRO
CN275 1P WHT :MINI
CN276 4P WHT :S-MICRO
CB(B)
HV FILTER
HV.OUT
HV.IN
K
CN293 2P BLK-L :S-MICRO
-35V
CN291 8P WHT-L :S-MICRO
H.SAW
H.PARA
V.PARA
-15.5V
+15.5V
+400V
CN294 3P YEL-L :S-MICRO
CN292 1P WHT :MINI
DF
PA
CN286 6P :LARGE
CN285 8P WHT-L :S-MICRO
CN289 3P WHT :MINI
DET
G2
CN287 6P WHT-L :S-MICRO
HV.REG
H.CONV.I
H.CONV.O
HV.PROT
CN288 3P YEL-L :S-MICRO
CN290 4P LARGE
E
C
CN296 2P WHT-L :S-MICRO
HV DET
CN283 11P WHT-L :S-MICRO
+100V
INT.OSC
CN281 3P WHT-L :S-MICRO
CN282 5P WHT-L :S-MICRO
CN284 13P WHT-L :S-MICRO
FAN.PROT
H.STOP
V.STOP
POWER CONT
ΣIK
G1 (B)
H (B)
CN154 4P YEL :S-MICRO
CN155 4P RED :S-MICRO
CAB
CN151
CN53
J301
FOCUS PACK
G2 (R)
G2 (G)
G2 (B)
FOCUS (R)
FOCUS (G)
FOCUS (B)
FOCUS IN
CN57 2P WHT :S-MICRO
CN55 2P RED :S-MICRO
FAN (-B)
AUTO ON/OFF
FAN2 MICRO
PC
FAN1
-B
SENS
E-11 3P WHT
E-3 6P WHT :S-MICRO
H1
H2
-100V
E-2 11P WHT :S-MICRO
E-1 13P RED :S-MICRO
H.KEYS
H.PIN
H.OSC
H.SIZE
HD (+12V)
H.INV
H.CENT (R)
H.CENT (G)
H.CENT (B)
E-4 6P WHT
H.DY (R)
INV.SENS
E-8 6P WHT
E-5 6P WHT
H.DY (G)
E-9 6P WHT
E-6 6P WHT
H.DY (B)
E-10 6P WHT
E-13 2P WHT :MINI
E14 2P WHT :S-MICRO
NB
CN501 6P WHT-L :S-MICRO
CN502 4P WHT-L :S-MICRO
SUB+5V
SIRCS TOY1
SIRCS TOY2
WIRELESS ON
SIRCS RC
RC ON
SIRCS
SUB 5V
RCON
RC-1
RC
NA
CN503 4P YEL-L :S-MICRO
5V
SIRCS N
SW
-5.7V
+35V
+5.7V
POWER.CONT
+10
+210
35V
15V
-15V
-35V
+5.7V
SUB+5V
POWER CONT
FAN.PROT
+210V
CN11 6P WHT :S-MICRO
CN10 4P YEL :S-MICRO
+20V
+12V
-20V
CN18 10P RED :S-MICRO
SP.ON/OFF
VAR/NOT
RM3/NOT
RGB/VID.
VID./YC.3
CN17 9P RED :S-MICRO
AM
CN14 12P YEL :S-MICRO
SLOT SEL
SEL2
SEL1
VIN SEL
RX
CN1
CN2
CN5
CN6
CN7
CN8
J6
J5
J4
J11
IFB-11
J1
IFB-1000
CN221
AC
CN101
AA
CN111
AB
CN211
KA
CN213 2P WHT :S-MICRO
CN212 2P RED :S-MICRO
L OUT
R OUT
SP2
SP1


DY
B
G
R
DY (B)
SUB DY (B)
DY (G)
SUB DY (G)
DY (R)
SUB DY (R)
DY-1 WHT
DY-2 BLK
CB(B)
CB(G)
CB(R)
CN271 4P YEL :S-MICRO
CN272 1P WHT :MINI
CN274 2P WHT :LARGE
CN273 4P RED :S-MICRO
CN275 1P WHT :MINI
CN276 4P WHT :S-MICRO
CN261 4P YEL :S-MICRO
CN262 1P WHT :MINI
CN264 2P WHT :LARGE
CN263 4P RED :S-MICRO
CN265 1P WHT :MINI
CN266 4P WHT :S-MICRO
CN251 4P YEL :S-MICRO
CN252 1P WHT :MINI
CN254 2P WHT :LARGE
CN253 4P RED :S-MICRO
CN255 1P WHT :MINI
CN256 4P WHT :S-MICRO
G1
NC
GND
H
K
G2
CRT GND
CAB
CAG
CAR
CN154 4P YEL :S-MICRO
CN155 4P RED :S-MICRO
CN153 4P WHT :S-MICRO
CN144 4P YEL :S-MICRO
CN145 4P RED :S-MICRO
CN143 4P WHT :S-MICRO
CN134 4P YEL :S-MICRO
CN135 4P RED :S-MICRO
CN133 4P WHT :S-MICRO
CN151
CN141
CN131
CN53
CN52
CN65
CN51
CN66
J301
J201
J101
CM
CN57 2P WHT :S-MICRO
CN55 2P RED :S-MICRO
CN56 3P YEL :S-MICRO
CN58 4P WHT :S-MICRO
CN54 2P WHT :S-MICRO
CN73 2P WHT :S-MICRO
CN74 6P WHT :S-MICRO
FAN (-B)
AUTO ON/OFF
H1
H2
GCTL (B)
GCTL (G)
GCTL (R)
FAN.PROT
-100V
FAN2 MICRO
FAN3 MICRO
FAN4 MICRO
CN63
CN64
CN171
CN161
DA
CAC
DM
CN62
CN181
DB
CN182 10P WHT-L :S-MICRO
CN183 10P BLK-L :S-MICRO
CN184 10P RED-L :S-MICRO
+5.7V
-5.7V
H.SUB (R)
H.SUB (G)
H.SUB (B)
V.SUB (R)
V.SUB (G)
V.SUB (B)
H.PARA
H.SIN1
H.SIN2
V.PARA
V.SIN1
V.SIN2
SD
LD
CLK
WR
A7
A6
A5
A4
A3
1/2H
1/2V
CN185 10P WHT-L :S-MICRO
CN186 10P BLK-L :S-MICRO
CN187 10P RED-L :S-MICRO
DE
FAN6 MICRO
FAN7 MICRO
FAN5
SENS -B
DC-17 2P WHT :S-MICRO
DC-18 2P WHT :S-MICRO
DC-14 3P WHT
DC
DC-10 5P RED :S-MICRO
DC-11 5P WHT :S-MICRO
DC-13 6P RED :S-MICRO
DC-12 5P YEL :S-MICRO
DC-3 12P WHT :S-MICRO
DC-5 4P RED :S-MICRO
DC-2 6P YEL :S-MICRO
DC-4 4P RED :S-MICRO
DC-7 4P WHT :S-MICRO
DC-6 4P WHT :S-MICRO
DC-9 4P YEL :S-MICRO
DC-8 4P YEL :S-MICRO
DC-1 11P WHT :S-MICRO
CN68 10P WHT :S-MICRO
CN70 6P RED :S-MICRO
CN71 12P WHT :S-MICRO
CN72 6PL YEL :S-MICRO
AD.HD
A.GND
V.INV
V.STOP
V.PULSE
V.DRIVE (R)
V.GND (R)
V.DRIVE (G)
V.GND (G)
V.DRIVE (B)
V.GND (B)
+210V
+100V
+15.5V
-15.5V
G
CN196 2P BLK :S-MICRO
CN192 9P
CN193 6P
CN191 5P
CN201 3P BLK :S-MICRO
CN195 10P WHT :S-MICRO
CN200 6P YEL :S-MICRO
CN194 11P WHT :S-MICRO
CN-199 10P RED :S-MICRO
-35V
35V
15V
-15V
+35V
SUB+5V
POWER CONT
+20V
+12V
-20V
J34 J35 J36
CN38 6P YEL :S-MICRO
CN42 13P WHT :S-MICRO
H.SAW
H.STOP
HV.PROT
ΣIK.PROT
ABL
CN40 10P WHT :S-MICRO
D0
D1
D2
D3
D4
D5
D6
D7
LED WR
BM
CN61
CN31
CN41 13P RED :S-MICRO
H.KEYS
H.PIN
H.OSC
H.SIZE
HD (+12V)
H.INV
H.CENT (R)
H.CENT (G)
H.CENT (B)
CN35 10P RED :S-MICRO
VOL
HDVS SEL
COL/B&W
SHARPNESS
GBR/YPBPR
HS (RGB)
VS (RGB)
CN34 12P YEL :S-MICRO
RGB/VID.0
VID/YC.0
SIRCS TOY2
SLOT SEL
SEL2
SEL1
VIN SEL
RX
TX
J31
J32
J33
CN32
CN33
Y-1
Y
CN121
B
CN18 10P RED :S-MICRO
CN17 9P RED :S-MICRO
SP.ON/OFF
VAR/NOT
RM3/NOT
RGB/VID.3
VID/YC.3
CN15 10P RED :S-MICRO
CN14 12P YEL :S-MICRO
KB
CN215 9P RED-L :S-MICRO
CN214 10P WHT-L :S-MICRO
CN8
J6 J5 J4
211
CN212 2P RED :S-MICRO
R OUT
SP1


DE
CN185 10P WHT-L :S-MICRO
+5.7V
-5.7V
GND
H.SUB (R)
H.SUB (G)
H.SUB (B)
V.SUB (R)
V.SUB (G)
V.SUB (B)
GND
CN186 10P BLK-L :S-MICRO
H.PARA
H.SIN1
H.SIN2
V.PARA
V.SIN1
V.SIN2
SD
LD
CLK
GND
CN187 10P RED-L :S-MICRO
WR
A7
A6
A5
A4
A3
A6
GND
1/2H
1/2V
FAN6 MICRO
FAN7 MICRO
FAN5
GND
FAN(-B)
GND
SENS
-B
DC
DC-17 2P WHT :S-MICRO
DC-18 2P WHT :S-MICRO
DC-14 3P WHT
DC-10 5P RED :S-MICRO
DC-11 5P WHT :S-MICRO
DC-12 5P YEL :S-MICRO
DC-13 6P RED :S-MICRO
DC-3 12P WHT :S-MICRO
DC-2 6P YEL :S-MICRO
DC-5 4P RED :S-MICRO
DC-4 4P RED :S-MICRO
DC-7 4P WHT :S-MICRO
DC-6 4P WHT :S-MICRO
DC-9 4P YEL :S-MICRO
DC-8 4P YEL :S-MICRO
DC-1 11P WHT :S-MICRO
AD.HD
A.GND
V.INV
FAN.PROT
V.STOP
V.PULSE
V.DRIVE (R)
V.GND (R)
V.DRIVE (G)
V.GND (G)
V.DRIVE (B)
V.GND (B)
NC
V.DY (R)
V.DY (G)
V.DY (B)
INV.SENS
-35V
-15.5V
A.GND
+15.5V
+35V

7-4. SCHEMATIC DIAGRAMS AND PRINTED WIRING BOARDS

Note:

- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics.
- All electrolytics are in 50V unless otherwise specified.
- All resistors are in ohms, 1/4W in resistance, 1/10W in chip resistance.
  kΩ = 1000Ω, MΩ = 1000kΩ
- ▭ : nonflammable resistor.
- ⏛ : fusible resistor.
- △ : internal component.
- ▭ : panel designation and adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- # marked in these schematic diagrams signifies not mounted.

- The components identified by ⧓ in this basic schematic diagrams have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required replace only with the value originally used.
- When replacing components identified by ◪, make the necessary adjustments indicated. If results do not meet the specified value, change the component identified by ⧓ and repeat the adjustment untill the specified value is achieved.
  (Refer to R1, R4, R29, R30, R33, R34, R131, R132 adjust on Page 63 to 66.)

Part replaced (◪)	Adjustment (⧓)
IC2, Q7, D9, D12, C13, R20, R21, R22, R23, R24, R33, R34, R35, R36, R82 (PA BOARD) HV BLOCK PA MOUNT	HV HOLD DOWN (R33, R34)
IC1, IC7, IC8, IC9, IC10, IC11, IC12, IC13, R38, R39, R63, R64, R65, R66, R69, R72, R78, R80, R131, R132, X1 (PA BOARD) HV BLOCK PA MOUNT, PB MOUNT	HV REGULATION (R131, R132)
IC2, IC3, IC5, Q1, Q2, Q7, Q8, D4, D5, D9, R1, R2, R3, R4, R5, R6, R7, R8, R9, R10, R20, R21, R22, R23, R24, R43, R44, R45, R46, R47, R82, R88, R121, R122, R143, R144 (PA BOARD) R733 (DA BOARD) PA MOUNT, PB MOUNT	BEAM CURRENT PROTECTOR (R1, R4)
IC1, IC3, IC5, Q8, D4, D5, D10, D11, R9, R10, R26, R28, R30, R31, R88, R95 (PA BOARD) PA MOUNT	LOW B PROTECTOR (R29, R30)

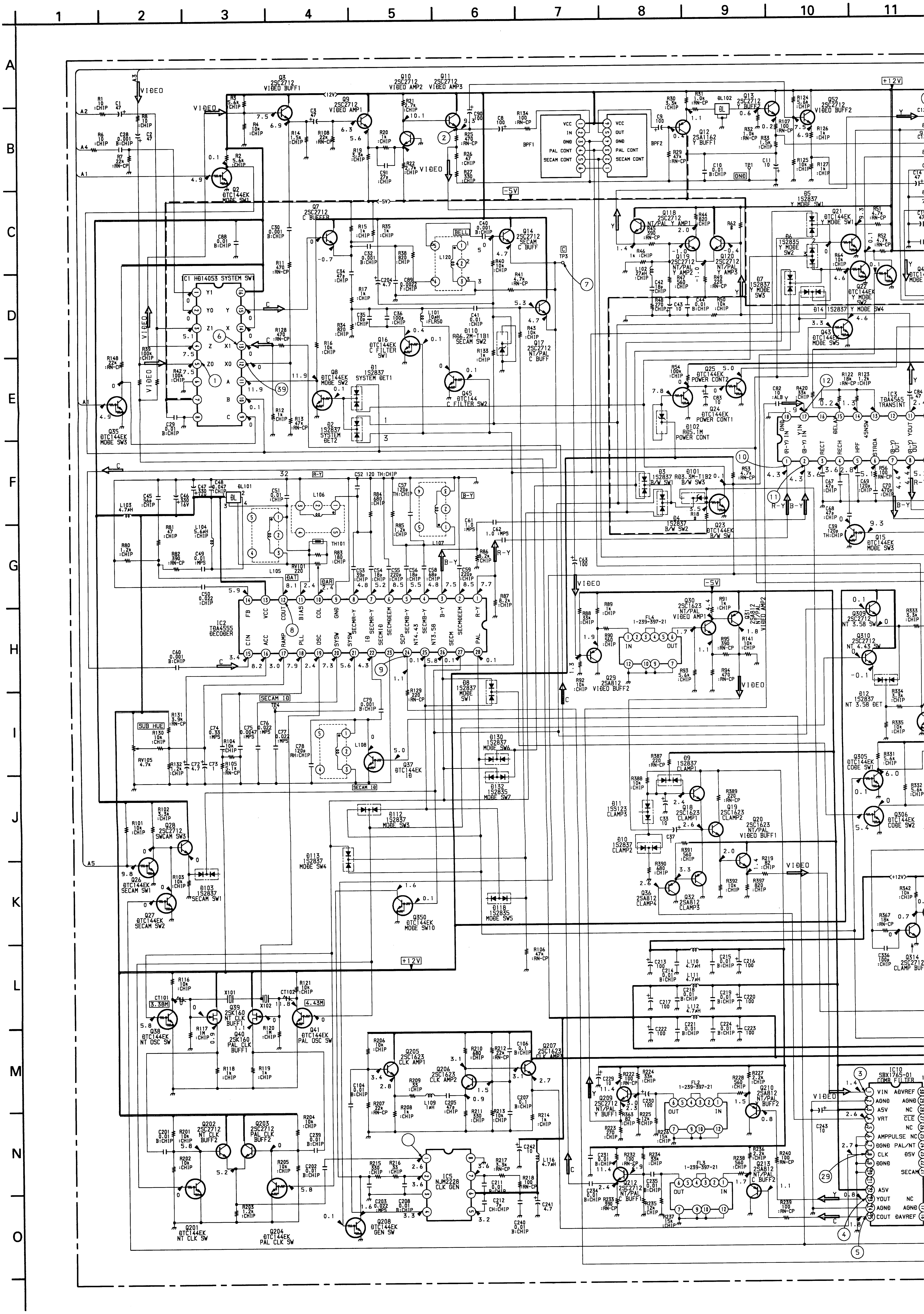
- Voltage value is the reference value between it and the earth, when NTSC 3.58 color bar signal is received from color bar generator (digital multi-meter used : 10M ohms/V DC).
- Unit of voltage values is V (volt).
- ∗ : Measurement disabled.
- ━━ : B + line.
- ━ ━ ━ : B – line.
  (Actual measured value may be different).
- Circled numbers are waveform references.
- ➡ : Signal Path.

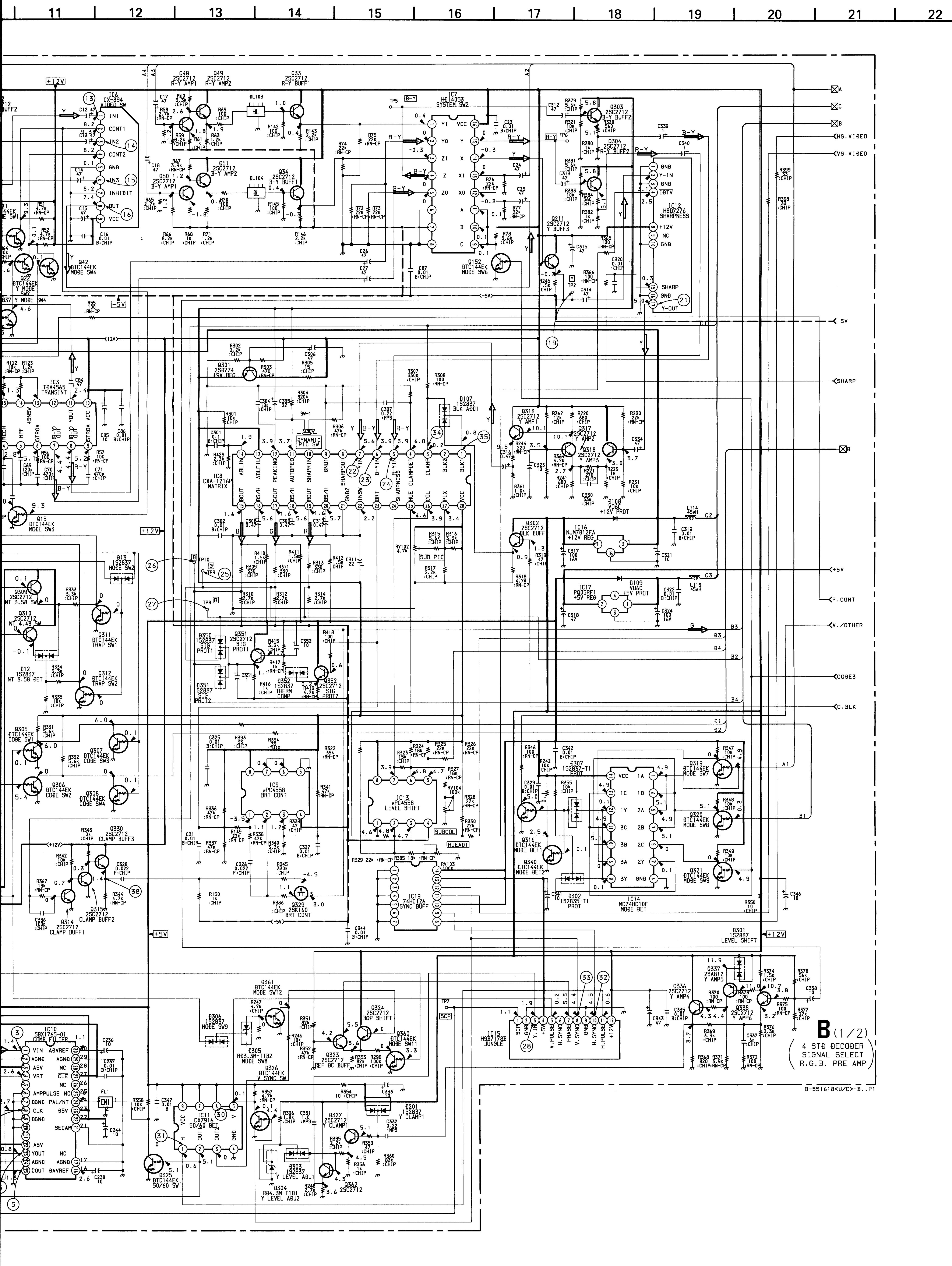
Reference information

RESISTOR	: RN	METAL FILM
	: RC	SOLID
	: FPRD	NONFRAMMABLE CARBON
	: FUSE	NONFLAMMABLE FUSIBLE
	: RS	NONFLAMMABLE METAL OXIDE
	: RB	NONFLAMMABLE CEMENT
	: RW	NONFLAMMABLE WIREWOUND
	: ※	ADJUSTMENT RESISTOR
COIL	: LF-8L	MICRO INDUCTOR
CAPACITOR	: TA	TANTALUM
	: PS	STYROL
	: PP	POLYPROPYLENE
	: PT	MYLAR
	: MPS	METALIZED POLYESTER
	: MPP	METALIZED POLYPROPYLENE
	: ALB	BIPOLAR
	: ALT	HIGH TEMPERATURE
	: ALR	HIGH RIPPLE

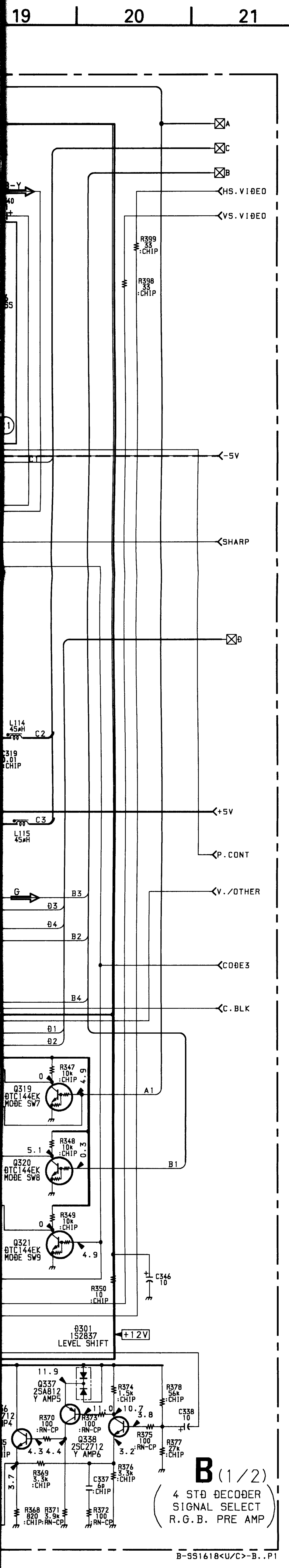
Note: The component identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

Note: Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

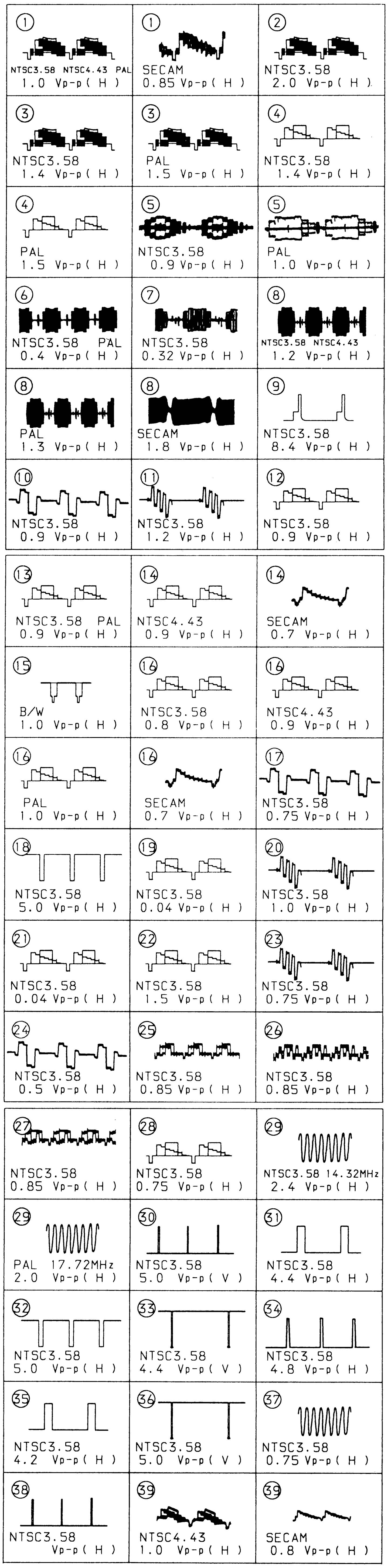

1
2
3
4
5
6
7
8
9
10
11
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
VIDEO
Q3 2SC2712 VIDEO BUFF1
Q9 2SC2712 VIDEO AMP1
Q10 2SC2712 VIDEO AMP2
Q11 2SC2712 VIDEO AMP3
BPF1
BPF2
VCC
IN
GND
PAL CONT
SECAM CONT
OUT
Q12 2SA1162 Y BUFF1
Q13 2SC2712 Y BUFF2
Q52 2SC2712 VIDEO BUFF2
+12V
-5V
Q2 DTC144EK MODE SW1
Q7 2SC2712 C BUFFER
Q14 2SC2712 SECAM C BUFF
BELL
L120
TP3
IC1 HD14053 SYSTEM SW1
Q16 DTC144EK C FILTER SW1
D110 RD6.2M-T1B1 SECAM SW2
Q17 2SC2712 NT/PAL C BUFF
Q8 DTC144EK MODE SW2
D1 1S2837 SYSTEM DET1
D2 1S2837 SYSTEM DET2
Q45 DTC144 C FILTER SW2
Q35 DTC144EK MODE SW3
Q118 2SC2712 NT/PAL Y AMP1
Q119 2SC2712 NT/PAL Y AMP2
Q120 2SC2712 NT/PAL Y AMP3
D5 1S2837 Y MODE SW1
D6 1S2835 Y MODE SW2
D7 1S2837 Y MODE SW3
Q21 DTC144EK Y MODE SW1
Q22 DTC144EK Y MODE SW2
D14 1S2837 Y MODE SW4
Q43 DTC144EK MODE SW5
Q25 DTC144EK POWER CONT2
Q24 DTC144EK POWER CONT1
D102 RD5.1M POWER CONT
IC3 TDA4565 TRANSINT
D3 1S2837 B/W SW1
D101 RD3.3M-T1B2 B/W SW3
D4 1S2837 B/W SW2
Q23 DTC144EK B/W SW
Q15 DTC144EK MODE SW3
DL101
L106
L107
TH101
RV101
DAT
DAR
IC2 TDA4555 DECODER
FB
VCC
COUT
BIAS
COL
GND
SECMA-Y
SECMR-Y
SECMID
SECMDEEM
SECMB-Y
SECMR-Y
B-Y
R-Y
CIN
ACC
RAMP
PLL
OSC
SYSW
ID
SCP
NT4.43
NT3.58
SECM
PAL
SECAM ID
SUB HUE
RV105
Q37 DTC144EK ID
D8 1S2837 MODE SW1
D130 1S2837 MODE SW6
D132 1S2835 MODE SW7
D112 1S2837 MODE SW3
D113 1S2837 MODE SW4
D118 1S2835 MODE SW5
Q350 DTC144EK MODE SW10
Q30 2SC1623 NT/PAL VIDEO AMP1
Q31 2SA812 NT/PAL VIDEO AMP2
Q29 2SA812 VIDEO BUFF2
FL4 1-239-397-21
D9 1S2837 CLAMP1
D11 1SS123 CLAMP3
D10 1S2837 CLAMP2
Q18 2SC1623 CLAMP1
Q19 2SC1623 CLAMP2
Q20 2SC1623 NT/PAL VIDEO BUFF1
Q36 2SA812 CLAMP4
Q32 2SA812 CLAMP3
Q309 2SC2712 NT 3.58 SW
Q310 2SC2712 NT 4.43 SW
D12 1S2837 NT 3.58 DET
Q305 DTC144EK CODE SW1
Q306 DTC144EK CODE SW2
Q314 2SC2712 CLAMP BUF
Q28 2SC2712 SECAM SW3
Q26 DTC144EK SECAM SW1
D103 1S2837 SECAM SW1
Q27 DTC144EK SECAM SW2
CT101 3.38M
X101
X102
CT102 4.43M
Q38 DTC144EK NT OSC SW
Q39 2SK160 NT CLK BUFF1
Q40 2SK160 PAL CLK BUFF1
Q41 DTC144EK PAL OSC SW
Q205 2SC1623 CLK AMP1
Q206 2SC1623 CLK AMP2
Q207 2SC1623 CLK AMP3
IC5 NJM2228 CLK GEN
Q208 DTC144EK GEN SW
Q202 2SC2712 NT CLK BUFF2
Q203 2SC2712 PAL CLK BUFF2
Q201 DTC144EK NT CLK SW
Q204 DTC144EK PAL CLK SW
Q209 2SC2712 NT/PAL Y BUFF1
FL2 1-239-397-21
Q210 2SA812 NT/PAL Y BUFF2
Q212 2SC2712 NT/PAL C BUFF1
FL3 1-239-397-21
Q213 2SA812 NT/PAL C BUFF2
IC10 SBX1765-01 COMB FILTER
VIN
AGND
A5V
VRT
AMPPULSE
CLK
DGND
YOUT
COUT
DAVREF
PAL/NT
SECAM
CLE


11
12
13
14
15
16
17
18
19
20
21
22
IC6 CX-894 VIDEO SW
IC7 HD14053 SYSTEM SW2
IC3 TDA4565 TRANSINT
IC8 CXA-1216P MATRIX
IC12 HD07276 SHARPNESS
IC16 NJM7812FA +12V REG
IC17 PQ05RF1 +5V REG
IC9 μPC4558 BRT CONT
IC13 μPC4558 LEVEL SHIFT
IC14 MC74HC10F MODE DET
IC19 74HC126 SYNC BUFF
IC15 H9B7178B JUNGLE
IC10 SBX1765-01 COMB FILTER
IC11 CX7916 50/60 DET
DYNAMIC PIC SW
SUB PIC
SUBCOL
HUEADT
HS.VIDEO
VS.VIDEO
-5V
SHARP
+5V
P.CONT
V./OTHER
CODE3
C.BLK
+12V
B-SS1618<U/C>-B..P1

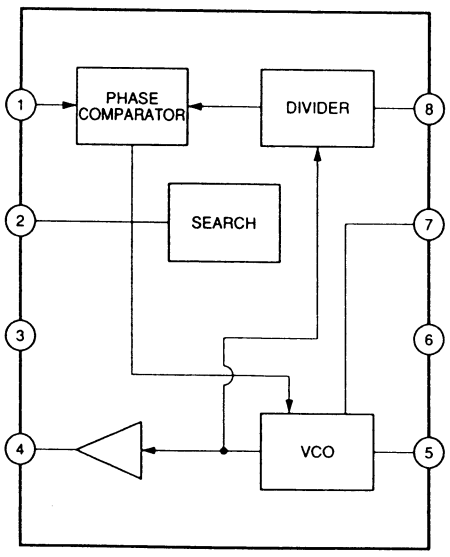
B (1/2)
4 STD DECODER
SIGNAL SELECT
R.G.B. PRE AMP


19
20
21
22
23
24
25
A
C
B
HS.VIDEO
VS.VIDEO
R399 33 :CHIP
R398 33 :CHIP
-5V
SHARP
D
L114 45μH
C2
C319 0.01 :CHIP
C3
L115 45μH
+5V
P.CONT
G
B3
V./OTHER
B4
B2
CODE3
B4
C.BLK
B1
B2
R347 10k :CHIP
4.9
0
Q319 DTC144EK MODE SW7
A1
R348 10k :CHIP
5.1
0.3
Q320 DTC144EK MODE SW8
B1
R349 10k :CHIP
0
Q321 DTC144EK MODE SW9
4.9
C346 10
R350 10 :CHIP
Q301 IS2837 LEVEL SHIFT
+12V
11.9
Q337 2SA812 Y AMP5
R374 1.5k :CHIP
R378 56k :CHIP
11.0
10.7
3.8
C338 10
R370 100 :RN-CP
R373 100 :RN-CP
Q338 2SC2712 Y AMP6
R375 100 :RN-CP
R377 27k :CHIP
4.3
4.4
3.2
3.7
R369 3.3k :CHIP
C337 6p :CHIP
R376 3.3k :CHIP
R368 820 :CHIP
R371 3.9k :RN-CP
R372 100 :RN-CP
B (1/2)
4 STD DECODER
SIGNAL SELECT
R.G.B. PRE AMP
B-SS1618<U/C>-B..P1

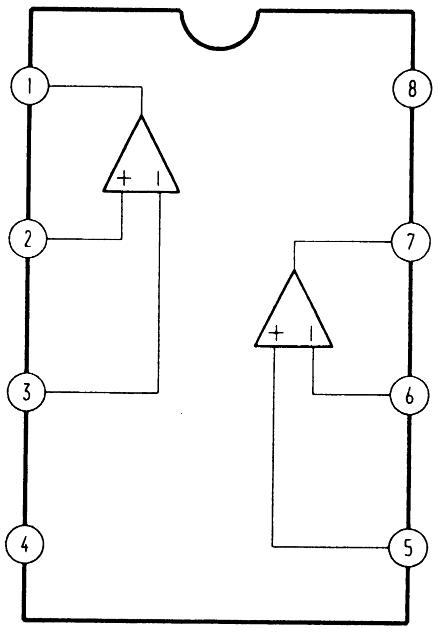
B (1/2) BOARD

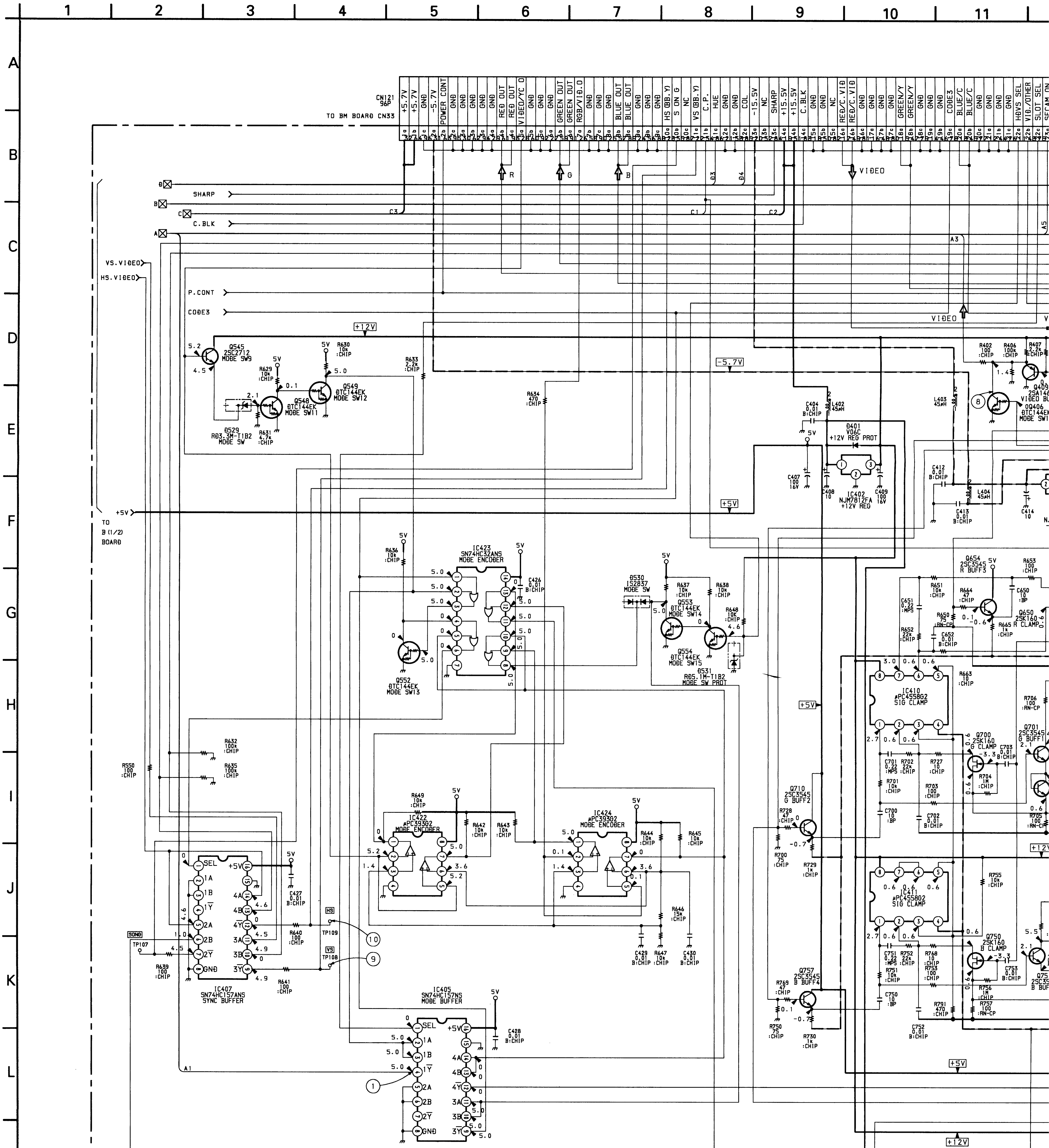

① NTSC3.58 NTSC4.43 PAL 1.0 Vp-p (H)
① SECAM 0.85 Vp-p (H)
② NTSC3.58 2.0 Vp-p (H)
③ NTSC3.58 1.4 Vp-p (H)
③ PAL 1.5 Vp-p (H)
④ NTSC3.58 1.4 Vp-p (H)
④ PAL 1.5 Vp-p (H)
⑤ NTSC3.58 0.9 Vp-p (H)
⑤ PAL 1.0 Vp-p (H)
⑥ NTSC3.58 PAL 0.4 Vp-p (H)
⑦ NTSC3.58 0.32 Vp-p (H)
⑧ NTSC3.58 NTSC4.43 1.2 Vp-p (H)
⑧ PAL 1.3 Vp-p (H)
⑧ SECAM 1.8 Vp-p (H)
⑨ NTSC3.58 8.4 Vp-p (H)
⑩ NTSC3.58 0.9 Vp-p (H)
⑪ NTSC3.58 1.2 Vp-p (H)
⑫ NTSC3.58 0.9 Vp-p (H)
⑬ NTSC3.58 PAL 0.9 Vp-p (H)
⑭ NTSC4.43 0.9 Vp-p (H)
⑭ SECAM 0.7 Vp-p (H)
⑮ B/W 1.0 Vp-p (H)
⑯ NTSC3.58 0.8 Vp-p (H)
⑯ NTSC4.43 0.9 Vp-p (H)
⑯ PAL 1.0 Vp-p (H)
⑯ SECAM 0.7 Vp-p (H)
⑰ NTSC3.58 0.75 Vp-p (H)
⑱ NTSC3.58 5.0 Vp-p (H)
⑲ NTSC3.58 0.04 Vp-p (H)
⑳ NTSC3.58 1.0 Vp-p (H)
㉑ NTSC3.58 0.04 Vp-p (H)
㉒ NTSC3.58 1.5 Vp-p (H)
㉓ NTSC3.58 0.75 Vp-p (H)
㉔ NTSC3.58 0.5 Vp-p (H)
㉕ NTSC3.58 0.85 Vp-p (H)
㉖ NTSC3.58 0.85 Vp-p (H)
㉗ NTSC3.58 0.85 Vp-p (H)
㉘ NTSC3.58 0.75 Vp-p (H)
㉙ NTSC3.58 14.32MHz 2.4 Vp-p (H)
㉙ PAL 17.72MHz 2.0 Vp-p (H)
㉚ NTSC3.58 5.0 Vp-p (V)
㉛ NTSC3.58 4.4 Vp-p (H)
㉜ NTSC3.58 5.0 Vp-p (H)
㉝ NTSC3.58 4.4 Vp-p (V)
㉞ NTSC3.58 4.8 Vp-p (H)
㉟ NTSC3.58 4.2 Vp-p (H)
㊱ NTSC3.58 5.0 Vp-p (V)
㊲ NTSC3.58 0.75 Vp-p (H)
㊳ NTSC3.58 Vp-p (H)
㊴ NTSC4.43 1.0 Vp-p (H)
㊴ SECAM 0.8 Vp-p (H)

B (1/2) BOARD IC5 NJM2228


PHASE COMPARATOR
DIVIDER
SEARCH
VCO
1
2
3
4
5
6
7
8

B (1/2) BOARD IC9, 13 μPC4558G2




CN121 96P
TO BM BOARD CN33
+5.7V
-5.7V
GND
POWER CONT
RED OUT
VIDEO/YC O
GREEN OUT
RGB/VID.O
BLUE OUT
HS (BB.Y)
S ON G
NC
VS (BB.Y)
C.P.
HUE
COL
-15.5V
SHARP
+15.5V
C.BLK
RED/C.VID
GREEN/Y
CODE3
BLUE/C
HDVS SEL
VID./OTHER
SLOT SEL
SECAM ON
SHARP
C.BLK
VS.VIDEO
HS.VIDEO
P.CONT
CODE3
VIDEO
+12V
-5.7V
+5V
TO B (1/2) BOARD
Q545 2SC2712 MODE SW9
Q548 DTC144EK MODE SW11
Q549 DTC144EK MODE SW12
D529 RD3.3M-T1B2 MODE SW
IC402 NJM7812FA +12V REG
D401 V06C +12V REG PROT
IC423 SN74HC32ANS MODE ENCODER
Q552 DTC144EK MODE SW13
D530 1SS237 MODE SW
Q553 DTC144EK MODE SW14
Q554 DTC144EK MODE SW15
D531 RD5.1M-T1B2 MODE SW PROT
IC422 μPC393G2 MODE ENCODER
IC424 μPC393G2 MODE ENCODER
IC407 SN74HC157ANS SYNC BUFFER
IC405 SN74HC157NS MODE BUFFER
IC410 μPC4558G2 SIG CLAMP
IC411 μPC4558G2 SIG CLAMP
Q654 2SC3545 R BUFF3
Q650 2SK160 R CLAMP
Q700 2SK160 G CLAMP
Q701 2SC3545 G BUFF1
Q710 2SC3545 G BUFF2
Q750 2SK160 B CLAMP
Q757 2SC3545 B BUFF4
Q409 2SA14 VIDEO BU
Q406 DTC144EK MODE SW1
TP107
TP108
TP109
SYNC
HS
VS
+15.5V

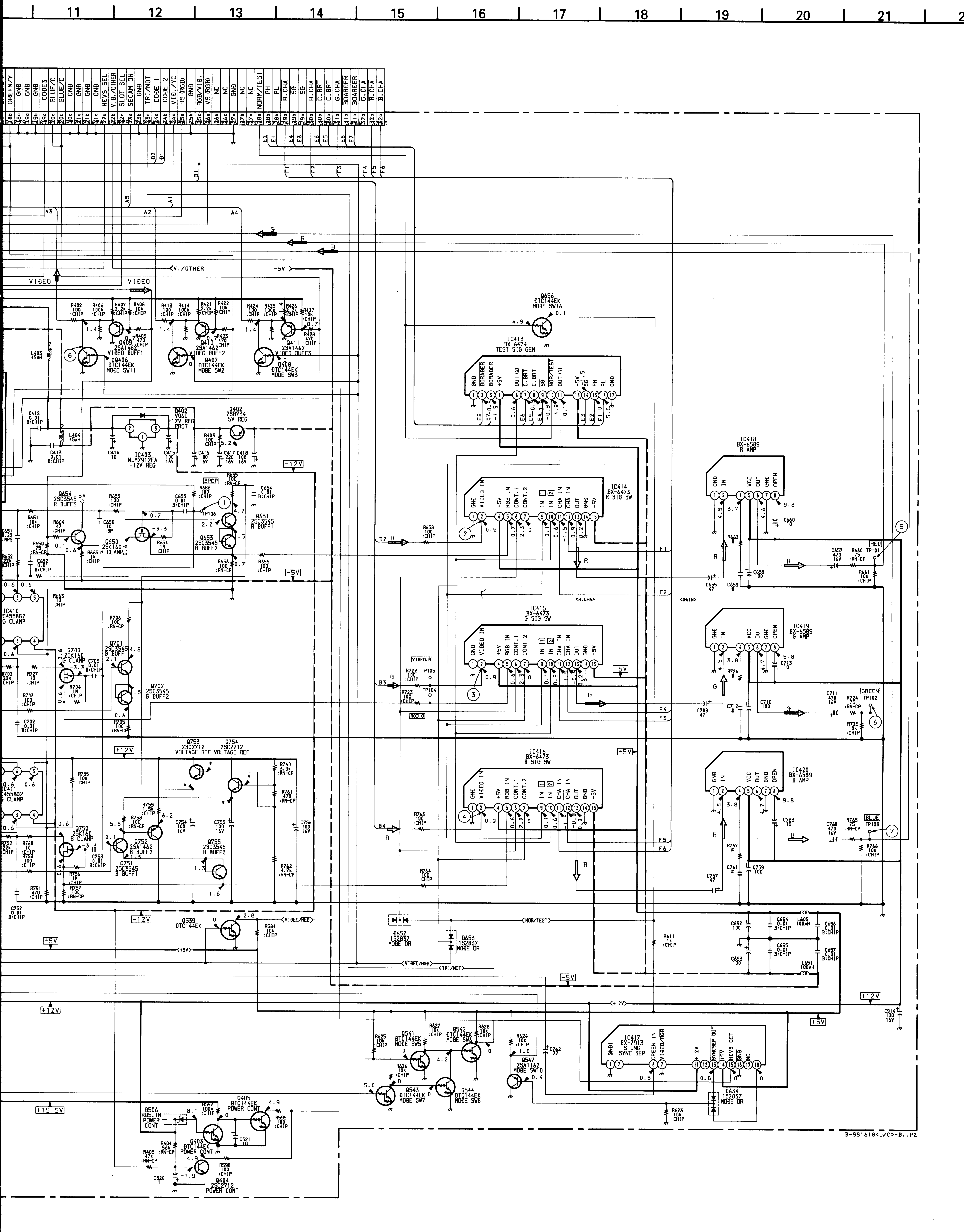
B (2/2) (4 STD DECODER SIGNAL SELECT R.G.B. PRE AMP)

Schematic diagram

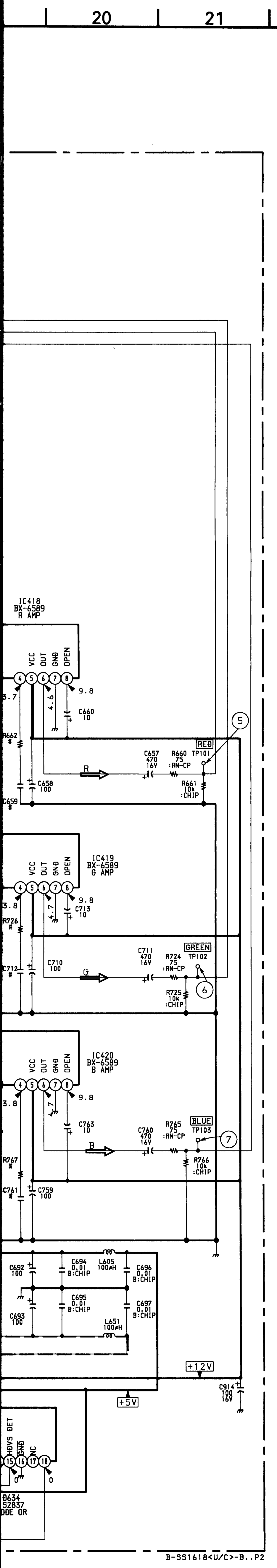
← B (1/2) board

Schematic diagram

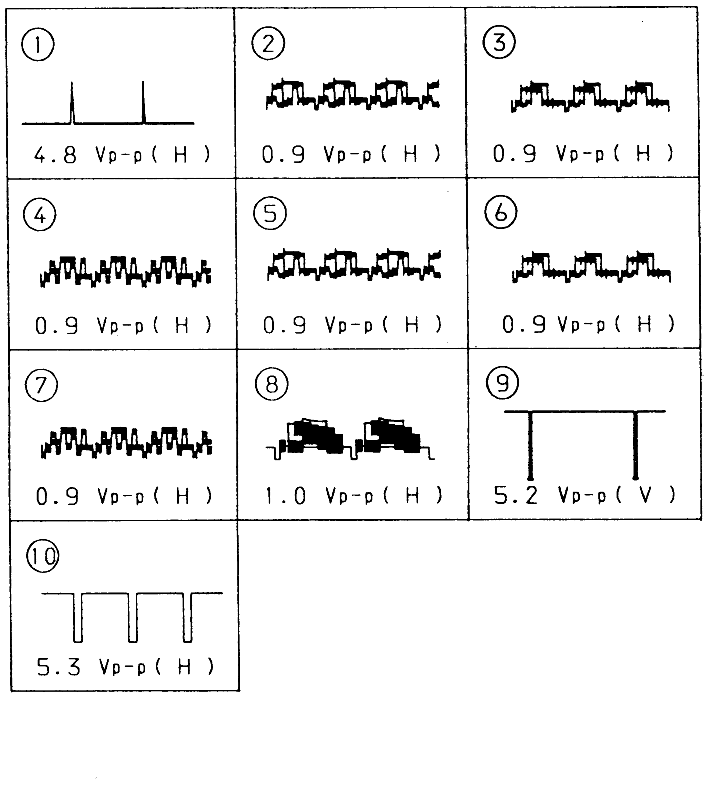
B (2/2) board →


11
12
13
14
15
16
17
18
19
20
21
GREEN/Y
GND
CODE3
BLUE/C
HDVS SEL
VIDEO/OTHER
SLOT SEL
SECAM ON
TRI/NOT
CODE 1
CODE 2
VID./YC
HS (RGB)
RGB/VID.
VS (RGB)
NC
NORM/TEST
PH
PL
R.CHA
SG
C.BRT
G.CHA
BOARDER
B.CHA
VIDEO
V./OTHER
-5V
Q656
DTC144EK
MODE SW16
IC413
BX-6474
TEST SIG GEN
R402 100 :CHIP
R406 100k :CHIP
R407 2.2k :CHIP
R408 10k :CHIP
Q409 2SA1462 VIDEO BUFF1
Q406 DTC144EK MODE SW11
Q410 2SA1462 VIDEO BUFF2
Q407 DTC144EK MODE SW2
Q411 2SA1462 VIDEO BUFF3
Q408 DTC144EK MODE SW3
L403 45µH
L404 45µH
C412 0.01 B:CHIP
C413 0.01 B:CHIP
D402 V06C -12V REG PROT
IC403 NJM7912FA -12V REG
Q402 2SB734 -5V REG
-12V
BPCP
Q654 2SC3545 R BUFF3
Q650 2SK160 R CLAMP
Q651 2SC3545 R BUFF1
Q653 2SC3545 R BUFF2
TP106
IC414 BX-6473 R SIG SW
GND
VIDEO IN
+5V
RGB IN
CONT.1
CONT.2
CHA IN
OUT
IC418 BX-6589 R AMP
VCC
OPEN
RED TP101
IC410 C4558G2 G CLAMP
Q700 2SK160 G CLAMP
Q701 2SC3545 G BUFF1
Q702 2SC3545 G BUFF2
IC415 BX-6473 G SIG SW
VIDEO.0
TP105
TP104
RGB.0
IC419 BX-6589 G AMP
GREEN TP102
<R.CHA>
<GAIN>
+12V
Q753 2SC2712 VOLTAGE REF
Q754 2SC2712 VOLTAGE REF
IC411 C4558G2 B CLAMP
Q750 2SK160 B CLAMP
Q752 2SA1462 B BUFF2
Q751 2SC3545 B BUFF1
Q755 2SC3545 B BUFF3
IC416 BX-6473 B SIG SW
IC420 BX-6589 B AMP
BLUE TP103
+5V
Q539 DTC144EK
<VIDEO/RGB>
<NOR/TEST>
D652 1S2837 MODE OR
D653 1S2837 MODE OR
<VIDEO/RGB>
<TRI/NOT>
L605 100µH
L651 100µH
+15.5V
Q541 DTC144EK MODE SW5
Q542 DTC144EK MODE SW6
Q543 DTC144EK MODE SW7
Q544 DTC144EK MODE SW8
Q547 2SA1162 MODE SW10
IC417 BX-7913 S ONG SYNC SEP
GND
GREEN IN
VIDEO/RGB
SYNCSEP OUT
HDVS DET
D634 1S2837 MODE OR
D506 RD5.1M POWER CONT
Q405 DTC144EK POWER CONT
Q403 DTC144EK POWER CONT
Q404 2SC2712 POWER CONT
C914 100 16V

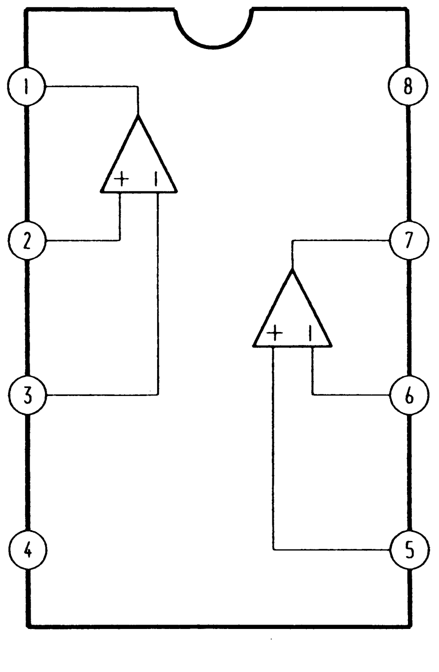
B-SS1618<U/C>-B..P2


20
21
22
23
24
25
26
IC418
BX-6589
R AMP
VCC
OUT
GND
OPEN
9.8
C660
10
R662
C657
470
16V
R660
75
:RN-CP
RED
TP101
R
R661
10k
:CHIP
C658
100
C659
IC419
BX-6589
G AMP
9.8
C713
10
R726
C711
470
16V
R724
75
:RN-CP
GREEN
TP102
C710
100
G
C712
R725
10k
:CHIP
IC420
BX-6589
B AMP
9.8
C763
10
C760
470
16V
R765
75
:RN-CP
BLUE
TP103
B
R766
10k
:CHIP
R767
C761
C759
100
C692
100
C694
0.01
B:CHIP
L605
100μH
C696
0.01
B:CHIP
C695
0.01
B:CHIP
C697
0.01
B:CHIP
C693
100
L651
100μH
+12V
+5V
C914
100
16V
HBVS DET
GND
NC
B634
52837
DDE OR
B-SS1618<U/C>-B..P2

B (2/2) BOARD



B (2/2) BOARD IC410, 411 μPC4558G2



B

[4 • STD DECODER, SIGNAL SELECT R, G, B PRE AMP]

B BOARD
(COMPONENT SIDE)

IC	
IC1	C-6
IC2	B-7
IC3	A-2
IC5	C-10
IC6	D-2
IC7	D-1
IC8	B-3
IC9	C-4
IC10	D-9
IC11	B-2
IC12	B-4
IC13	D-3
IC14	B-1
IC15	A-5
IC16	C-5
IC17	C-5
IC19	B-1
IC402	F-5
IC403	G-6
IC405	F-9
IC407	F-10
IC410	F-5
IC411	E-5
IC413	G-2
IC414	G-3
IC415	F-3
IC416	F-3
IC417	E-2
IC418	G-1
IC419	G-2
IC420	F-1
IC422	F-10
IC423	G-9
IC424	F-9

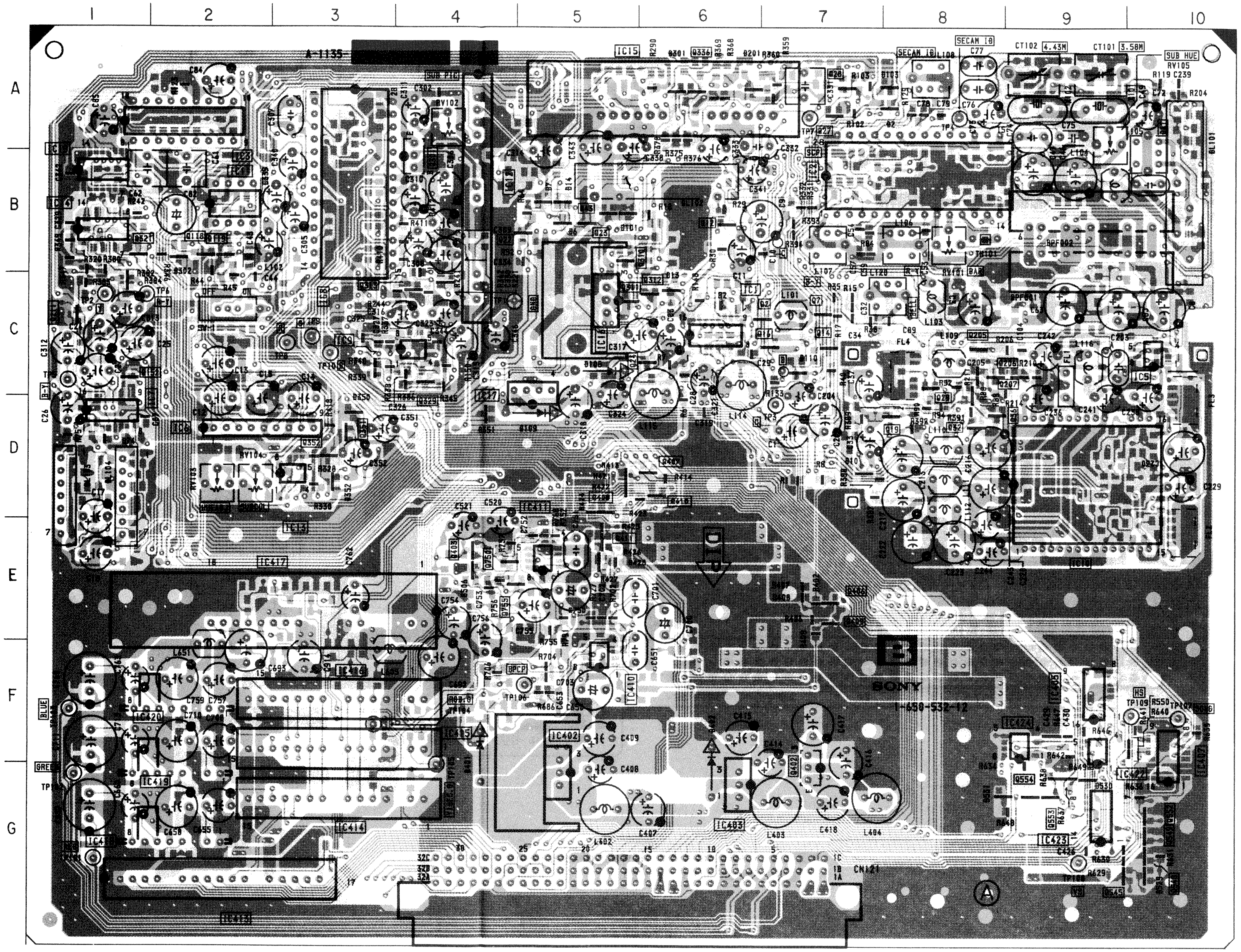
TRANSISTOR	
Q2	C-6
Q7	C-7
Q12	B-6
Q14	C-7
Q16	C-6
Q19	D-8
Q22	B-4
Q23	B-5
Q24	C-5
Q27	A-7
Q28	A-7
Q29	D-8
Q32	D-8
Q36	D-8
Q43	B-5
Q118	B-2
Q119	B-2
Q152	C-1
Q205	C-8
Q206	C-9
Q207	C-8
Q211	C-1
Q301	B-4
Q310	B-5
Q311	C-5
Q312	C-6
Q313	C-4
Q321	B-1
Q329	C-4
Q336	A-6
Q351	D-3
Q352	D-3
Q402	F-7
Q403	E-4
Q406	E-7
Q407	D-6
Q408	D-5
Q409	E-7
Q410	D-6
Q411	E-5
Q545	G-9
Q548	G-10
Q549	G-10
Q552	G-10
Q553	G-9
Q554	G-9
Q750	E-4
Q755	E-4

DIODE	
D2	A-8
D6	B-5
D7	B-5
D10	D-7
D13	C-6
D14	B-5
D101	B-5
D103	A-8
D108	C-5
D109	D-5
D110	C-7
D201	A-6
D301	A-6
D302	B-2
D350	D-3
D351	D-4
D352	D-3
D401	F-4
D402	F-6
D506	E-4
D529	G-10
D530	G-9
D531	G-8

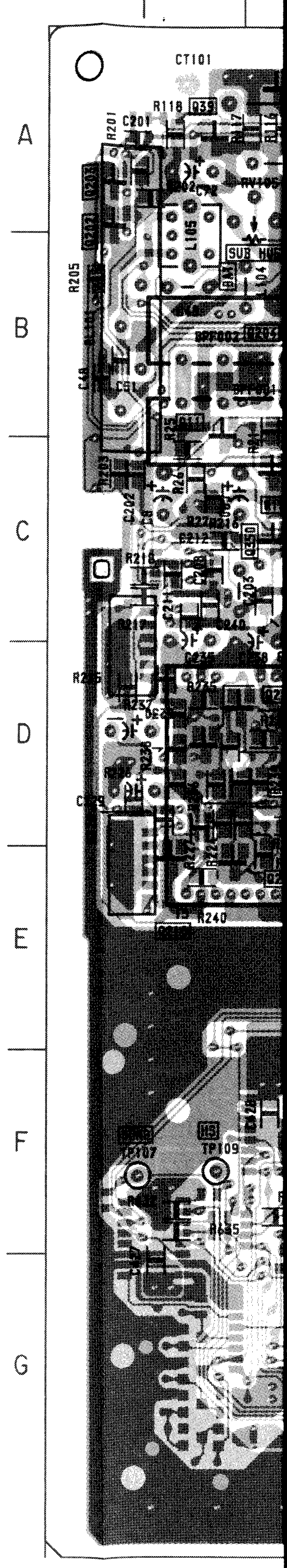
ADJUSTING ELEMENT	
CT101	A-9
CT102	A-9
RV101	B-8
RV102	A-4
RV103	D-2
RV104	D-2
RV105	A-9

TEST POINT	
TP1	C-4
TP2	C-1
TP3	D-7
TP4	A-8
TP5	C-1
TP6	C-1
TP7	A-7
TP8	C-3
TP9	C-3
TP10	C-3
TP101	G-1
TP102	G-1
TP103	F-1
TP104	F-3
TP105	F-4
TP106	F-5
TP107	F-10
TP108	G-9
TP109	F-10

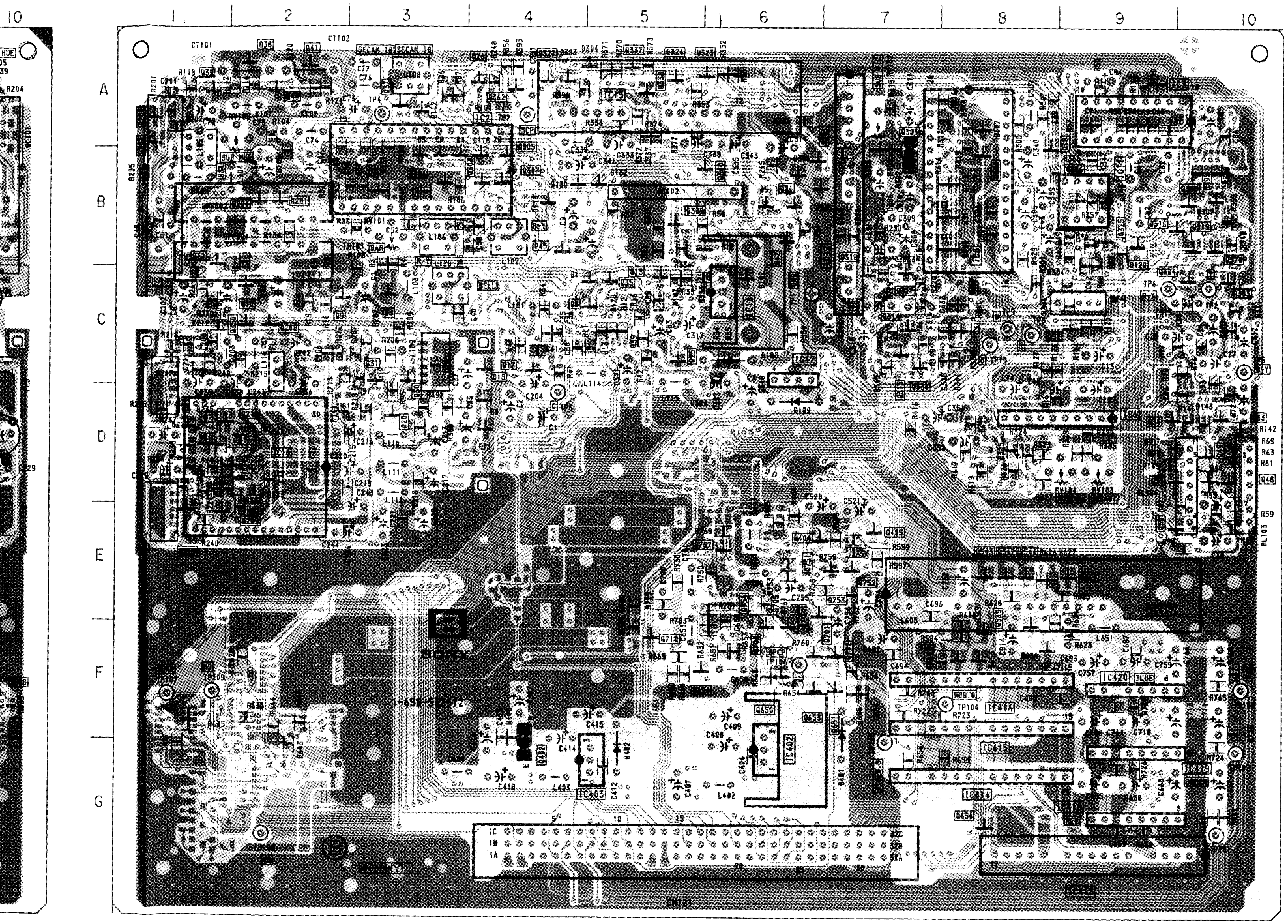
– **B BOARD** – <Component Side>


1
2
3
4
5
6
7
8
9
10
A
B
C
D
E
F
G
A-1135
IC15
SECAM
CT102 4.43M
CT101 3.58M
SUB HUE
RV105
BLUE
GREEN
SONY
1-650-532-12
CN121

<Conductor Side


1
A
B
C
D
E
F
G
CT101
R205
R240
TP107
TP109

<Conductor Side>


1
2
3
4
5
6
7
8
9
10
A
B
C
D
E
F
G
SONY
B
CN121
TP107
TP109
TP108
TP104
TP106
TP6
TP4
IC415
IC416
IC420
IC402
IC403
IC413
IC414
IC417
IC16
IC17
IC15
CT101
CT102
-650-582-12

B BOARD
(CONDUCTOR SIDE)

IC	
IC2	B-3
IC3	A-9
IC6	D-9
IC8	B-8
IC10	D-2
IC11	B-9
IC12	B-7
IC15	A-5
IC16	C-6
IC17	C-6
IC402	F-6
IC403	G-5
IC413	G-9
IC414	G-8
IC415	F-8
IC416	F-8
IC417	E-9
IC418	G-9
IC419	G-9
IC420	F-9

TRANSISTOR	
Q3	C-3
Q8	C-5
Q9	C-2
Q10	C-2
Q11	B-1
Q13	C-5
Q15	A-8
Q17	C-4
Q18	C-4
Q20	D-3
Q21	B-6
Q25	C-5
Q26	A-4
Q30	C-3
Q31	C-3
Q33	D-10
Q34	D-9
Q35	C-5
Q37	A-3
Q38	A-2
Q39	A-1
Q40	A-2
Q41	A-2
Q42	B-6
Q45	B-4
Q48	D-10
Q49	D-10
Q50	E-9
Q51	D-9
Q52	C-8
Q120	B-9
Q201	B-2
Q202	A-1
Q203	A-1
Q204	B-2
Q208	C-2
Q209	E-2
Q210	E-1
Q212	D-2
Q213	D-2
Q301	B-7
Q302	B-8
Q303	C-10
Q304	C-10
Q305	B-4
Q306	B-3
Q307	B-4
Q308	B-3
Q309	B-5
Q314	C-7
Q315	C-7
Q316	B-9
Q317	C-7
Q318	B-7
Q319	B-10
Q320	B-10
Q323	A-5
Q324	A-5
Q325	B-9
Q326	B-9
Q327	A-4
Q330	C-7
Q337	A-5
Q338	A-5
Q340	B-10
Q350	C-2
Q360	B-5
Q361	B-6
Q362	A-4
Q402	F-4
Q404	E-6
Q405	E-7
Q539	E-8
Q541	E-9
Q542	E-8
Q543	E-8
Q544	E-8
Q547	F-8
Q650	F-6
Q651	F-7
Q653	F-6
Q654	F-5
Q656	G-8
Q700	F-6
Q701	F-6
Q702	F-7
Q710	F-5
Q751	E-6
Q752	E-7
Q753	E-7
Q754	E-6
Q757	E-6

DIODE	
D1	C-5
D3	B-3
D4	B-3
D5	B-6
D8	B-3
D9	D-4
D11	D-4
D12	B-5
D102	C-6
D107	A-8
D108	C-6
D109	D-6
D112	A-3
D113	B-4
D118	B-4
D130	B-4
D132	B-5
D303	A-4
D304	A-5
D305	B-6
D306	B-10
D307	F-7
D401	B-6
D402	G-5
D634	F-8
D652	F-8
D653	F-8

ADJUSTING ELEMENT	
CT101	A-1
CT102	A-2
RV101	B-3
RV102	A-7
RV103	D-9
RV104	D-9
RV105	A-2

TEST POINT	
TP1	C-6
TP2	C-10
TP3	D-4
TP4	A-3
TP5	C-10
TP6	C-9
TP7	A-4
TP8	C-8
TP9	C-8
TP10	C-8
TP101	G-10
TP102	G-10
TP103	F-10
TP104	F-8
TP105	F-7
TP106	F-6
TP107	F-1
TP108	G-2
TP109	F-1

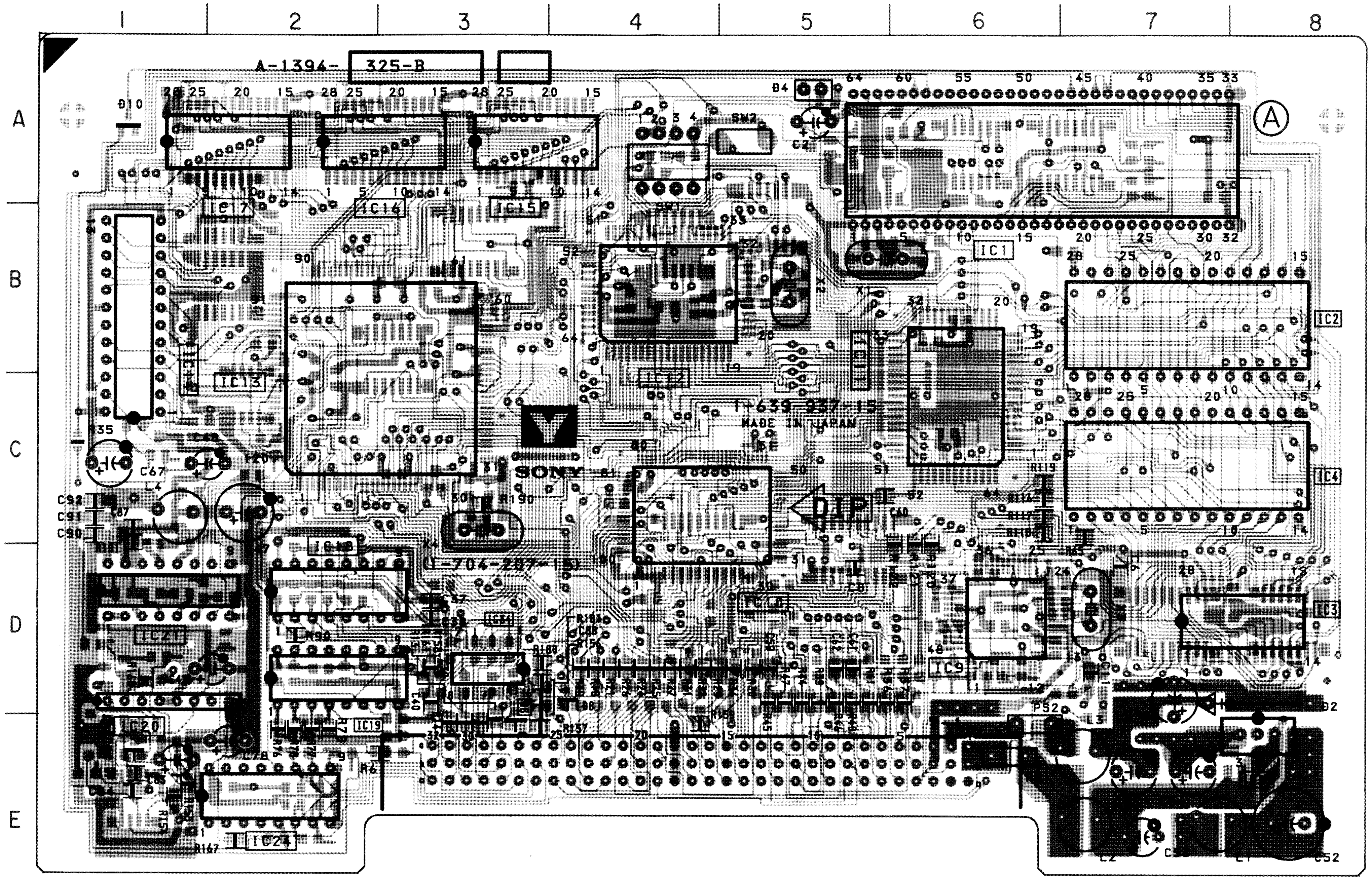
- ░ : Pattern from the side which enables seeing.
- ▒ : Pattern of the rear side.

Y [CPU-MEMORY]

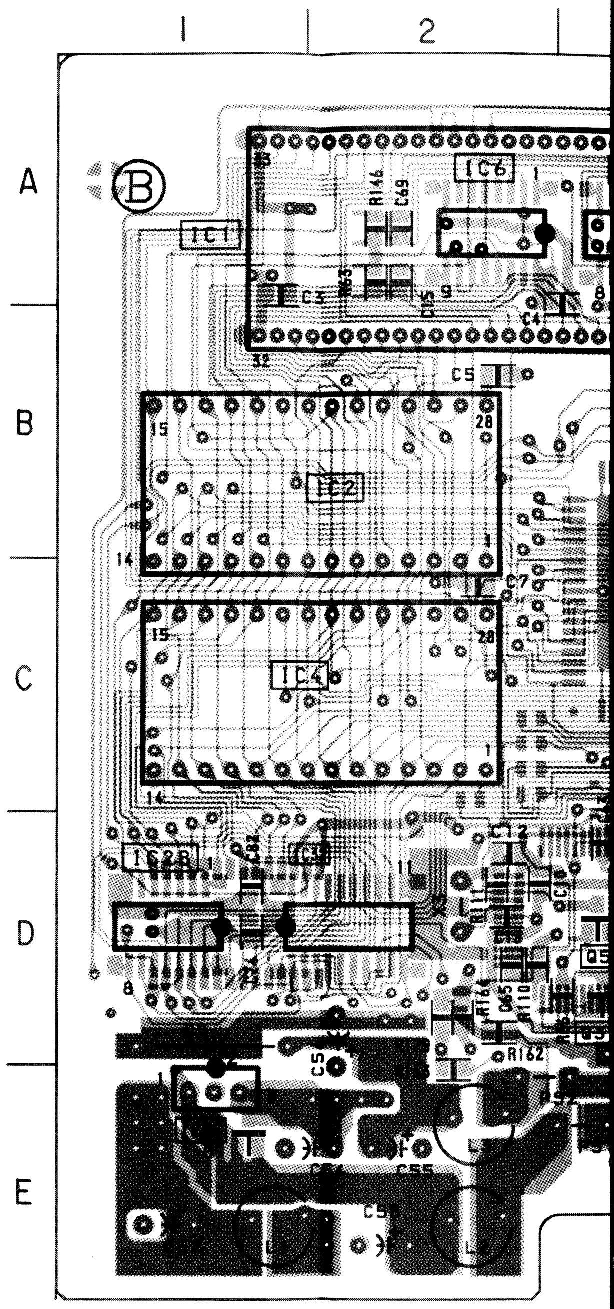
Y BOARD
(COMPONENT SIDE)

IC	
IC1	A-6
IC2	B-7
IC3	D-8
IC4	C-7
IC9	D-6
IC10	C-4
IC11	C-6
IC12	B-4
IC13	C-2
IC14	B-1
IC15	A-3
IC16	A-3
IC17	A-2
IC18	D-2
IC19	D-2
IC20	D-1
IC21	D-1
IC24	E-2
IC34	D-3
IC35	E-8
TRANSISTOR	
Q8	D-3
DIODE	
D2	D-8
D4	A-5
D7	E-1
D8	D-4
D10	A-1

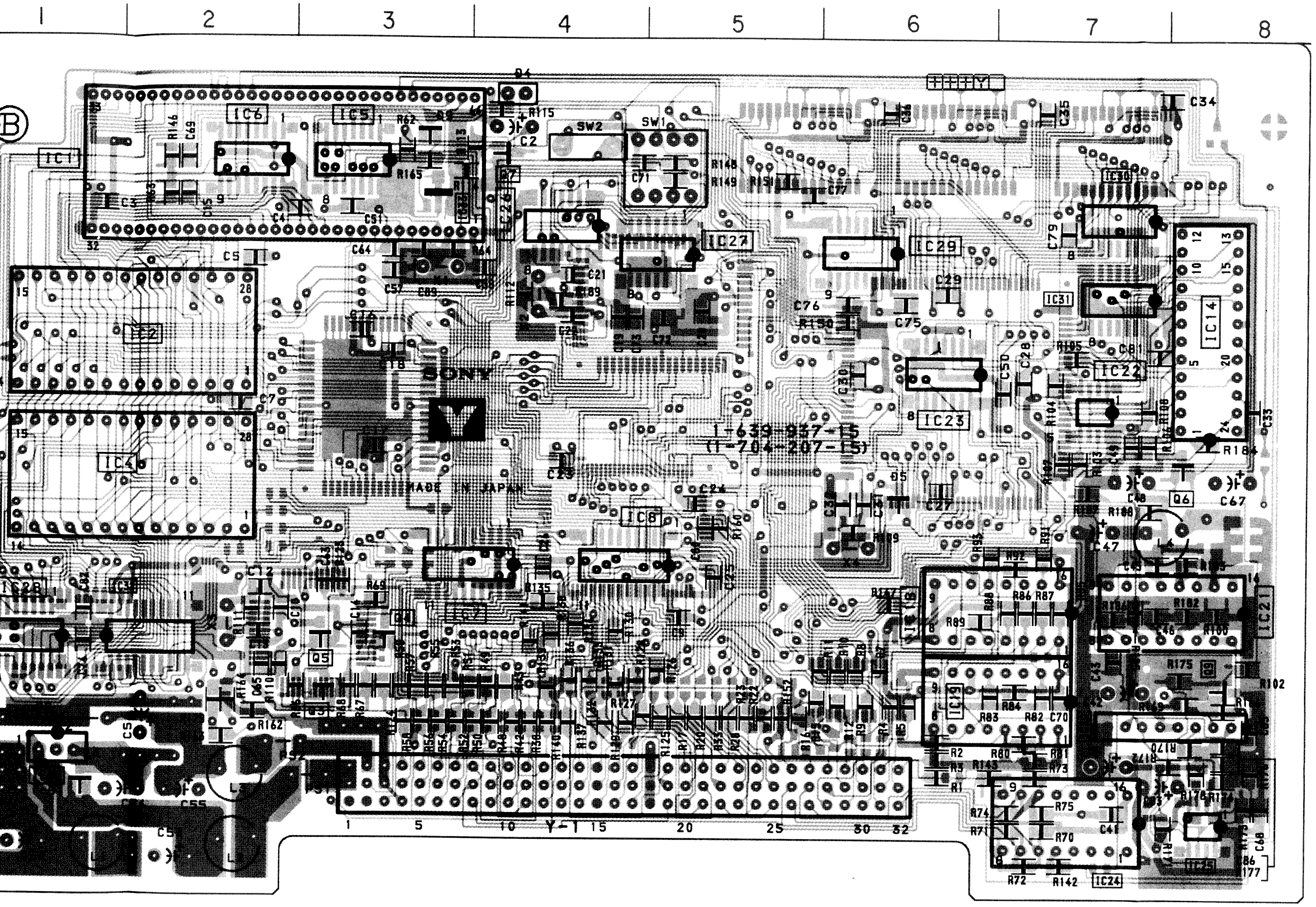
– Y BOARD – <Component Side>


1
2
3
4
5
6
7
8
A
B
C
D
E
A-1394-325-B
1-639-937-15
MADE IN JAPAN
1-704-207-15
SONY
DIP
Ⓐ
IC1
IC2
IC3
IC4
IC9
IC10
IC12
IC13
IC14
IC15
IC17
IC18
IC19
IC20
IC21
IC24
IC34
SW1
SW2
X1
X2
C2
D4
D10
C67
L4
C92
C91
C90
PS2
L3
L2
L1
C52
D2
R6
R167
R190

<Conductor Side>


1
2
A
B
C
D
E
Ⓑ
IC1
IC2
IC4
IC6
IC28
C3
C4
C5
C54
C55
R162

<Conductor Side>


1
2
3
4
5
6
7
8
B
IC1
IC6
IC5
IC2
IC4
IC27
IC29
IC30
IC31
IC22
IC23
IC14
IC8
IC19
IC21
IC24
IC25
Q5
Q6
SW1
SW2
SONY
1-639-957-15
(1-704-207-15)
MADE IN JAPAN
Y-1
1
5
10
15
20
25
30
32

- ▨ : Pattern from the side which enables seeing.
- ▩ : Pattern of the rear side.

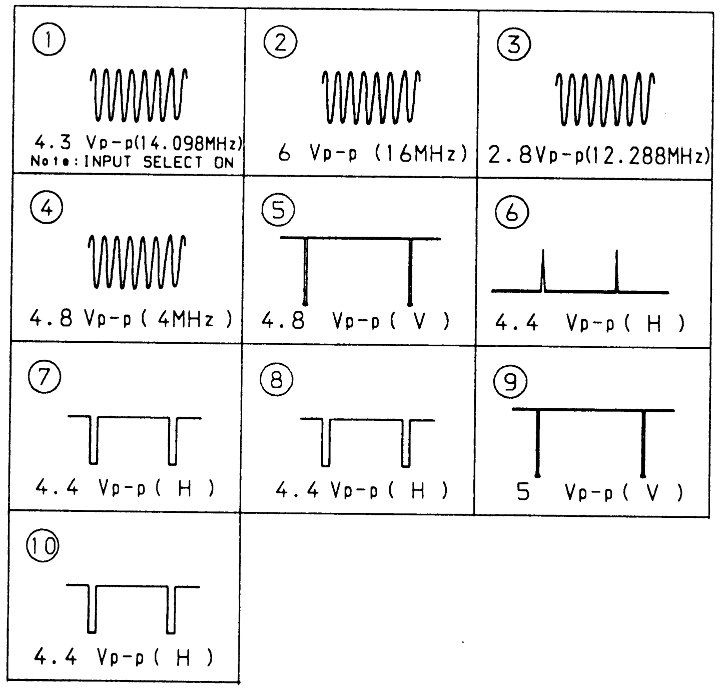
Y BOARD (CONDUCTOR SIDE)

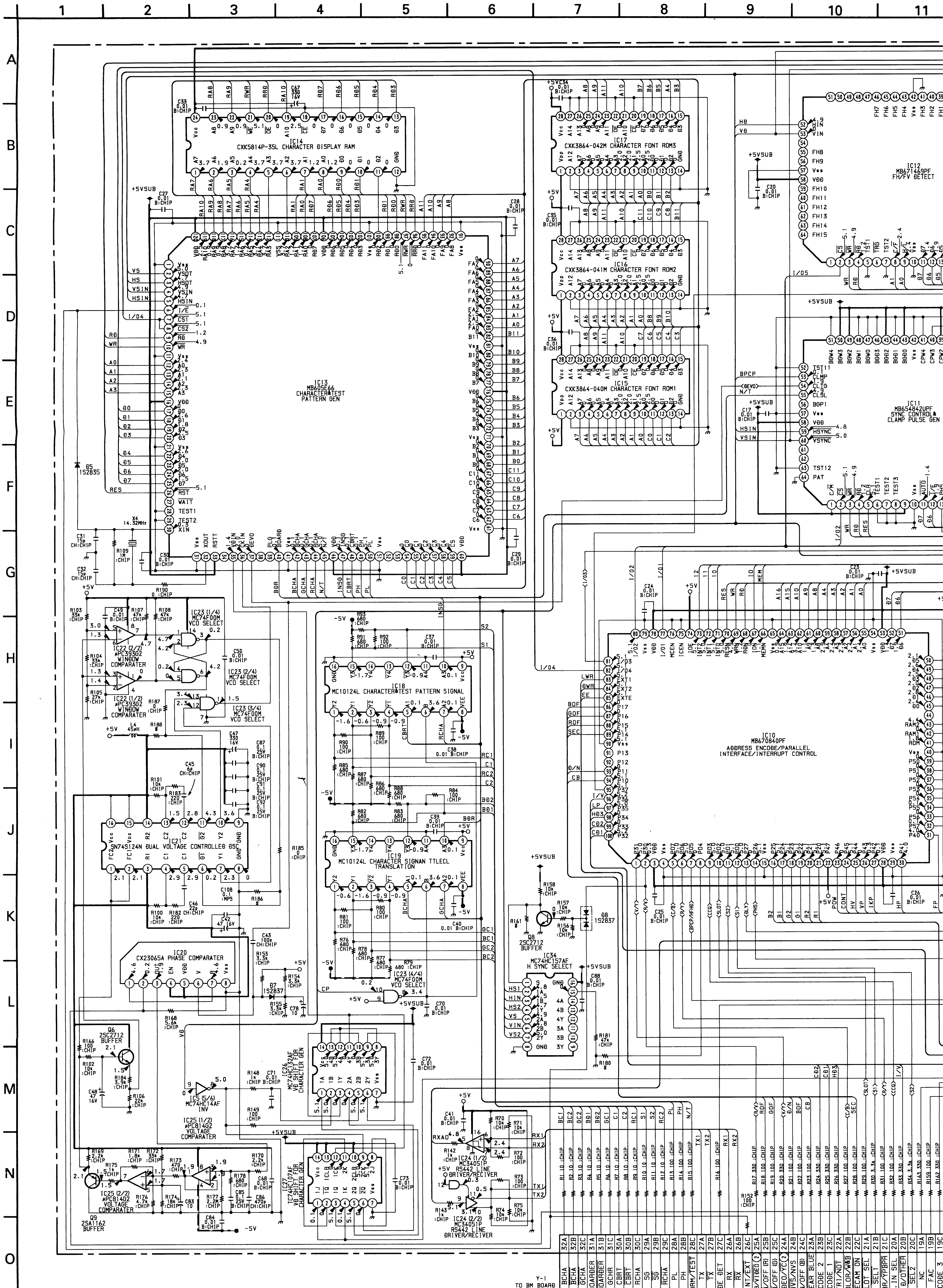
IC	
IC1	A-1
IC2	B-1
IC4	C-1
IC5	A-3
IC6	A-2
IC7	D-4
IC8	D-4
IC14	B-8
IC18	D-7
IC19	D-7
IC20	D-7
IC21	D-8
IC22	C-7
IC23	B-6
IC24	E-7
IC25	E-8
IC26	B-4
IC27	B-5
IC28	D-1
IC29	B-6
IC30	B-7
IC31	B-7
IC32	D-2
IC33	A-3
IC35	E-1

TRANSISTOR	
Q3	D-3
Q4	D-3
Q5	D-3
Q6	C-8
Q7	A-4
Q9	D-8

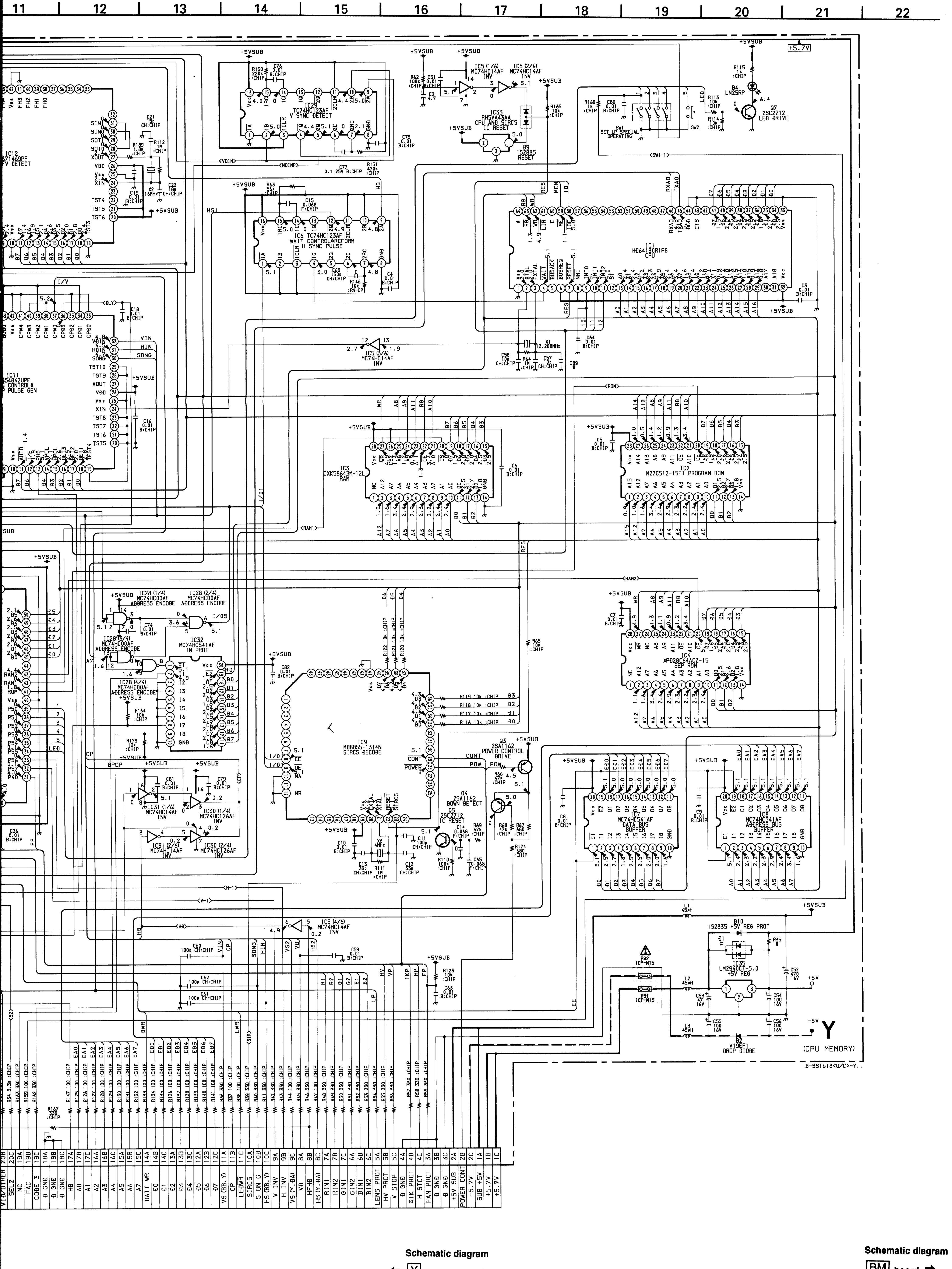
DIODE	
D1	E-1
D4	A-4
D5	C-6
D9	A-3

Y BOARD


①
4.3 Vp-p(14.098MHz)
Note: INPUT SELECT ON
②
6 Vp-p (16MHz)
③
2.8Vp-p(12.288MHz)
④
4.8 Vp-p (4MHz)
⑤
4.8 Vp-p (V)
⑥
4.4 Vp-p (H)
⑦
4.4 Vp-p (H)
⑧
4.4 Vp-p (H)
⑨
5 Vp-p (V)
⑩
4.4 Vp-p (H)



1 2 3 4 5 6 7 8 9 10 11
A B C D E F G H I J K L M N O
IC14 CXK5814P-35L CHARACTER DISPLAY RAM
IC17 CXK3864-042M CHARACTER FONT ROM3
IC16 CXK3864-041M CHARACTER FONT ROM2
IC15 CXK3864-040M CHARACTER FONT ROM1
IC12 MB671469PF FH/FV DETECT
IC13 MB605E66 CHARACTER&TEST PATTERN GEN
IC11 MB654842UPF SYNC CONTROL& CLAMP PULSE GEN
IC10 MB670840PF ADDRESS ENCODE/PARALLEL INTERFACE/INTERRUPT CONTROL
IC22 (2/2) μPC393G2 WINDOW COMPARATER
IC22 (1/2) μPC393G2 WINDOW COMPARATER
IC23 (1/4) MC74F00M VCO SELECT
IC23 (2/4) MC74F00M VCO SELECT
IC23 (3/4) MC74F00M VCO SELECT
IC23 (4/4) MC74F00M VCO SELECT
IC21 SN74S124N DUAL VOLTAGE CONTROLLED OSC
IC18 MC10124L CHARACTER&TEST PATTERN SIGNAL
IC19 MC10124L CHARACTER SIGNAN TTLECL TRANSLATION
IC20 CX23065A PHASE COMPARATER
IC34 MC74HC157AF H SYNC SELECT
IC26 MC74HC132AF VD SHIFT FOR CHARACTER GEN
IC27 TC74HC107AF VD SHIFT FOR CHARACTER GEN
IC5 (5/6) MC74HC14AF INV
IC25 (1/2) μPC814G2 VOLTAGE COMPARATER
IC25 (2/2) μPC814G2 VOLTAGE COMPARATER
IC24 (1/2) MC3405IP RS442 LINE DRIVER/RECIVER
IC24 (2/2) MC3405IP RS442 LINE DRIVER/RECIVER
Q6 2SC2712 BUFFER
Q8 2SC2712 BUFFER
Q9 2SA1162 BUFFER
D5 1S2835
D7 1S2837
D8 1S2837
X4 14.32MHz
+5VSUB
+5V
-5V
Y-1 TO BM BOARD CN32
32A BCHA
32B BCHA
32C GCHA
31A BOARDER
31B BOARDER
31C GCHR
30B CBRT
30A CBRT
29A RCHA
29B SG
29C SG
28A RCHA
28B PL
28C PH
27A NORM/TEST
27B TX
27C TX
26A ΘE ΘET
26B RX
26C RX
25A INT/EXT
25B RGB/VIDEO(2)
25C ON/OFF (R)
24A ON/OFF (G)
24B VIDEO/YC(2)
24C ΘT5/NVS
23A ON/OFF (B)
23B CLEAR BLUE
23C CODE 2
22A CODE 1
22B TRI/NOT
22C COLOR/W&B
21A SECAM ON
21B SLOT SEL
21C SEL1
20A GBR/YPBPR
20B V.IN SEL
20C VID/OTHER
19A SEL2
19B NC
19C FAC
CODE 3



11
12
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14
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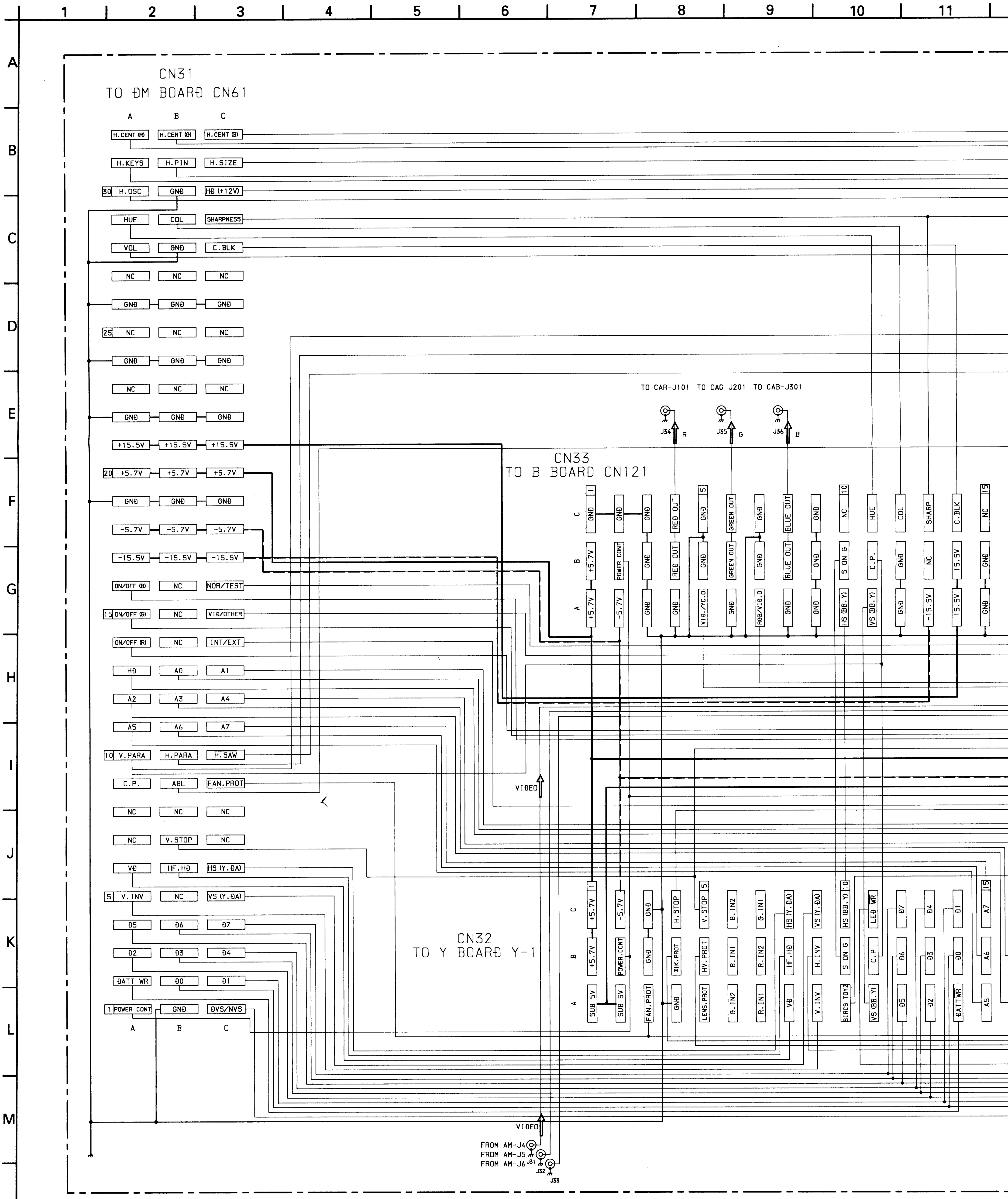
16
17
18
19
20
21
22
IC1 HD64180RIP8 CPU
IC2 M27C512-15F1 PROGRAM ROM
IC3 CXK5864BM-12L RAM
IC4 μPD28C64ACZ-15 EEP ROM
IC5 MC74HC14AF INV
IC6 TC74HC123AF WAIT CONTROL&REFORM H SYNC PULSE
IC7 MC74HC541AF DATA BUS BUFFER
IC8 MC74HC541AF ADDRESS BUS BUFFER
IC9 MB88SS-1314N SIRCS DECODE
IC11 CONTROL& PULSE GEN
IC12 V DETECT
IC23 TC74HC123AF V SYNC DETECT
IC28 MC74HC00AF ADDRESS ENCODE
IC30 MC74HC126AF INV
IC31 MC74HC14AF INV
IC32 MC74HC541AF IN PROT
IC33 RH5VA43AA CPU AND SIRCS IC RESET
IC35 LM2940CT-5.0 +5V REG
Q3 2SA1162 POWER CONTROL DRIVE
Q4 2SA1162 DOWN DETECT
Q5 2SC2712 IC RESET
Q7 2SC2712 LED DRIVE
D4 LN25RP
D9 1S2835 RESET
D10 1S2835 +5V REG PROT
D2 V19EF1 DROP DIODE
SW1 SET UP SPECIAL OPERATING
SW2
PS1 ICP-N15
PS2 ICP-N15
X1 12.288MHz
+5VSUB
+5.7V
+5V
-5V
Y
(CPU MEMORY)
B-SS1618<U/C>-Y..

Schematic diagram
← [Y] board

Schematic diagram
[BM] board →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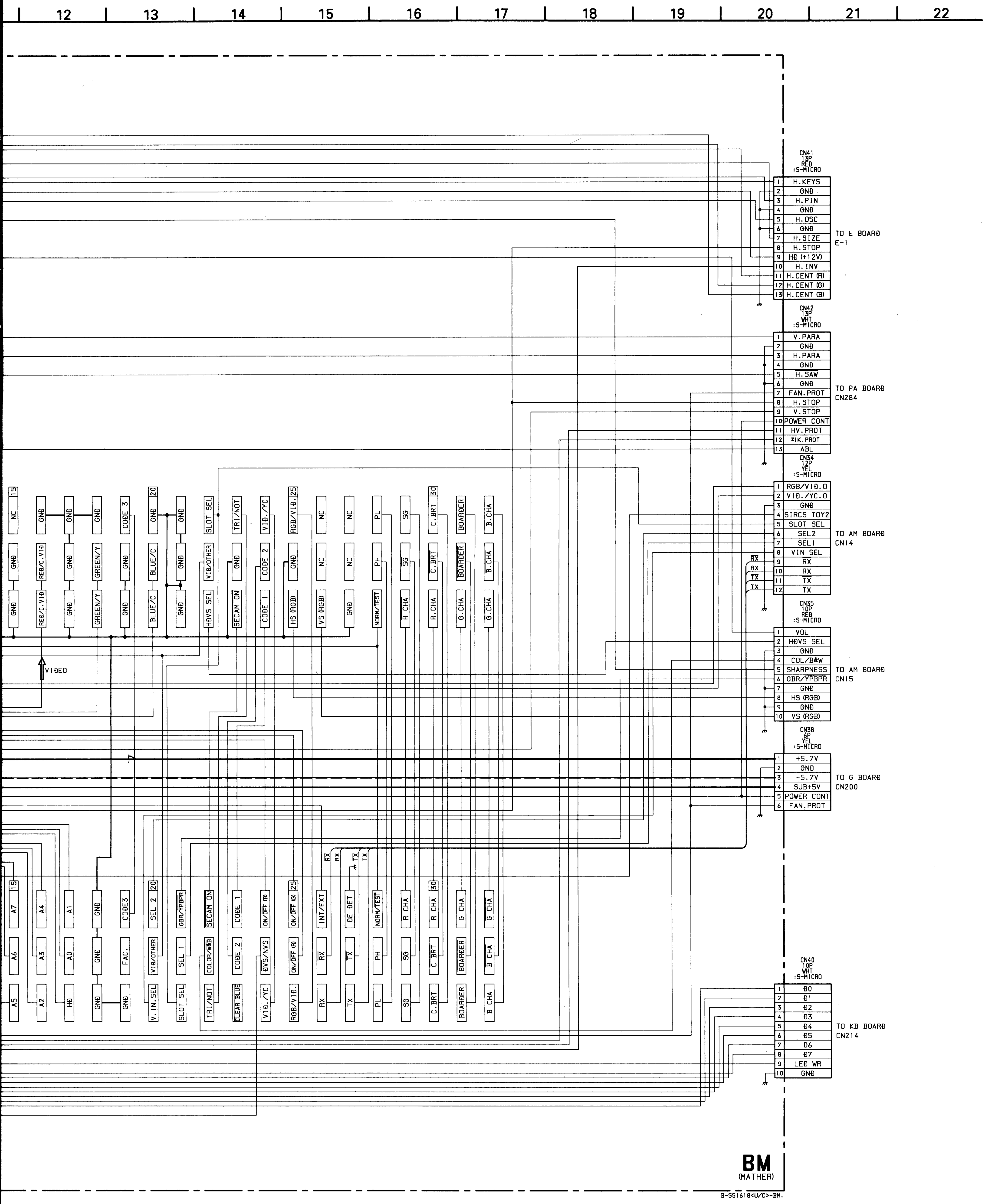
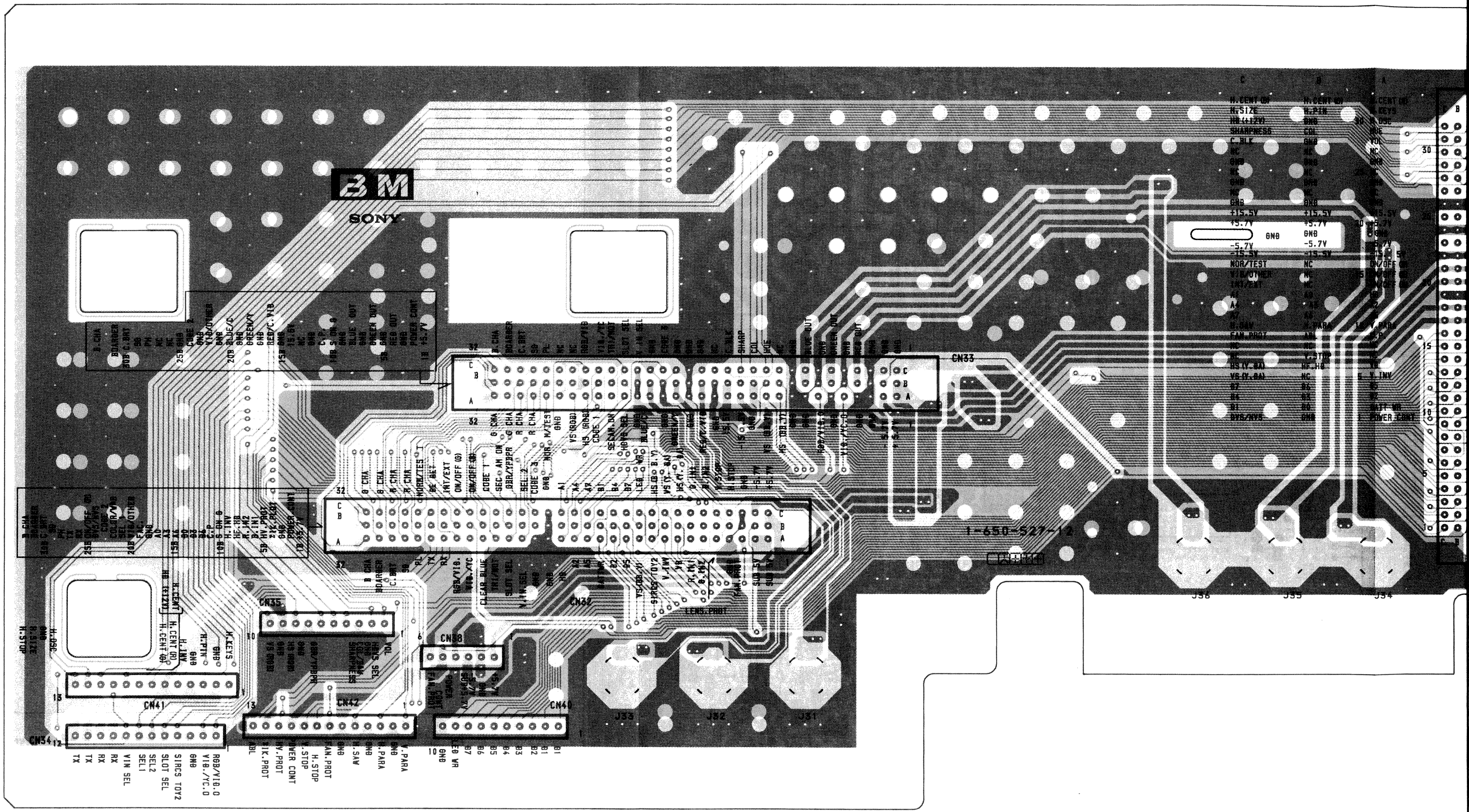
11
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
CN31
TO DM BOARD CN61
A
B
C
H.CENT (R)
H.CENT (G)
H.CENT (B)
H.KEYS
H.PIN
H.SIZE
30
H.OSC
GND
HD (+12V)
HUE
COL
SHARPNESS
VOL
GND
C.BLK
NC
NC
NC
GND
GND
GND
25
NC
NC
NC
GND
GND
GND
NC
NC
NC
GND
GND
GND
+15.5V
+15.5V
+15.5V
20
+5.7V
+5.7V
+5.7V
GND
GND
GND
-5.7V
-5.7V
-5.7V
-15.5V
-15.5V
-15.5V
ON/OFF (B)
NC
NOR/TEST
15
ON/OFF (G)
NC
VID/OTHER
ON/OFF (R)
NC
INT/EXT
HD
A0
A1
A2
A3
A4
A5
A6
A7
10
V.PARA
H.PARA
H.SAW
C.P.
ABL
FAN.PROT
NC
NC
NC
NC
V.STOP
NC
VD
HF.HD
HS (Y.DA)
5
V.INV
NC
VS (Y.DA)
D5
D6
D7
D2
D3
D4
DATT WR
D0
D1
1
POWER CONT
GND
DVS/NVS
A
B
C
TO CAR-J101
TO CAG-J201
TO CAB-J301
J34
R
J35
G
J36
B
CN33
TO B BOARD CN121
C
B
A
GND
1
GND
GND
RED OUT
GND
5
GREEN OUT
GND
BLUE OUT
GND
NC
10
HUE
COL
SHARP
C.BLK
NC
15
+5.7V
POWER CONT
GND
RED OUT
GND
GREEN OUT
GND
BLUE OUT
GND
S ON G
C.P.
GND
NC
15.5V
GND
+5.7V
-5.7V
GND
GND
VID./YC.O
GND
RGB/VID.O
GND
GND
HS (BB.Y)
VS (BB.Y)
GND
-15.5V
15.5V
GND
VIDEO
CN32
TO Y BOARD Y-1
C
B
A
+5.7V
1
-5.7V
GND
H.STOP
V.STOP
5
B.IN2
G.IN1
HS (Y.DA)
VS (Y.DA)
HS (BB.Y)
10
LED WR
D7
D4
D1
A7
15
+5.7V
POWER.CONT
GND
ΣIK.PROT
HV.PROT
B.IN1
R.IN2
HF.HD
H.INV
S ON G
C.P
D6
D3
D0
A6
SUB 5V
SUB 5V
FAN.PROT
GND
LENS.PROT
G.IN2
R.IN1
VD
V.INV
SIRCS TOYZ
VS (BB.Y)
D5
D2
DATT WR
A5
VIDEO
FROM AM-J4
FROM AM-J5
FROM AM-J6
J31
J32
J33

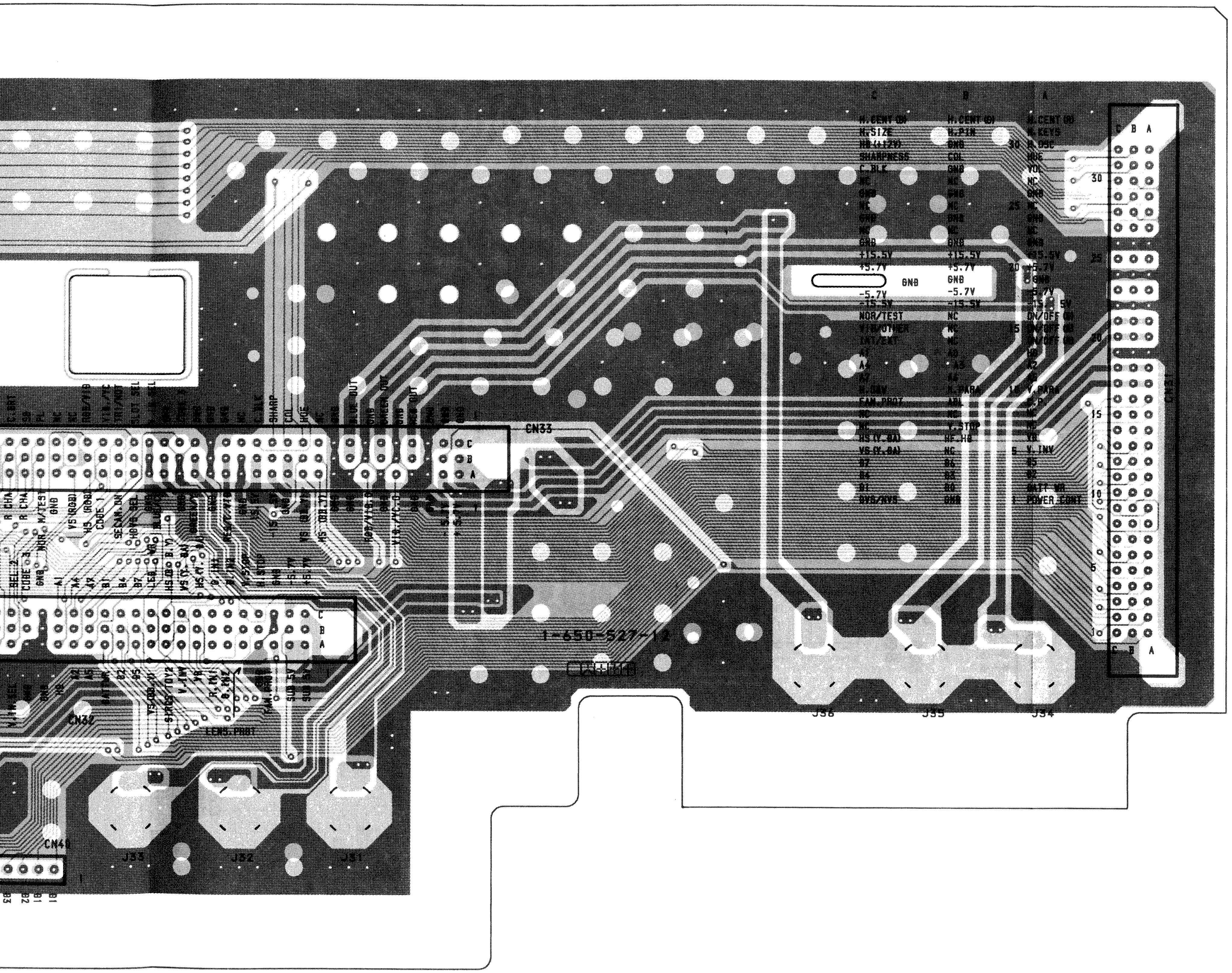

12
13
14
15
16
17
18
19
20
21
22
CN41 13P RED :S-MICRO
1 H.KEYS
2 GND
3 H.PIN
4 GND
5 H.OSC
6 GND
7 H.SIZE
8 H.STOP
9 HD (+12V)
10 H.INV
11 H.CENT (R)
12 H.CENT (G)
13 H.CENT (B)
TO E BOARD E-1
CN42 13P WHT :S-MICRO
1 V.PARA
2 GND
3 H.PARA
4 GND
5 H.SAW
6 GND
7 FAN.PROT
8 H.STOP
9 V.STOP
10 POWER CONT
11 HV.PROT
12 IK.PROT
13 ABL
TO PA BOARD CN284
CN34 12P YEL :S-MICRO
1 RGB/VID.O
2 VID./YC.O
3 GND
4 SIRCS TOY2
5 SLOT SEL
6 SEL2
7 SEL1
8 VIN SEL
9 RX
10 RX
11 TX
12 TX
TO AM BOARD CN14
RX
RX
TX
TX
CN35 10P RED :S-MICRO
1 VOL
2 HDVS SEL
3 GND
4 COL/B&W
5 SHARPNESS
6 GBR/YPBPR
7 GND
8 HS (RGB)
9 GND
10 VS (RGB)
TO AM BOARD CN15
CN38 6P YEL :S-MICRO
1 +5.7V
2 GND
3 -5.7V
4 SUB+5V
5 POWER CONT
6 FAN.PROT
TO G BOARD CN200
CN40 10P WHT :S-MICRO
1 D0
2 D1
3 D2
4 D3
5 D4
6 D5
7 D6
7 D7
9 LED WR
10 GND
TO KB BOARD CN214
15
NC
GND
GND
GND
RED/C.VID
RED/C.VID
GND
GND
GND
GND
GREEN/Y
GREEN/Y
CODE 3
GND
GND
20
GND
BLUE/C
BLUE/C
GND
GND
GND
SLOT SEL
VID/OTHER
HDVS SEL
TRI/NOT
GND
SECAM ON
VID./YC
CODE 2
CODE 1
25
RGB/VID.
GND
HS (RGB)
NC
NC
VS (RGB)
NC
NC
GND
PL
PH
NORM/TEST
SG
SG
R CHA
30
C.BRT
C.BRT
R.CHA
BOARDER
BOARDER
G.CHA
B.CHA
B.CHA
G.CHA
VIDEO
RX
RX
TX
TX
15
A7
A6
A5
A4
A3
A2
A1
A0
HD
GND
GND
GND
CODE3
FAC.
GND
20
SEL 2
VID/OTHER
V.IN.SEL
GBR/YPBPR
SEL 1
SLOT SEL
SECAM ON
COLOR/W&B
TRI/NOT
CODE 1
CODE 2
CLEAR BLUE
ON/OFF (B)
DVS/NVS
VID./YC
25
ON/OFF (G)
ON/OFF (R)
RGB/VID.
INT/EXT
RX
RX
DE DET
TX
TX
NORM/TEST
PH
PL
R CHA
SG
SG
30
R CHA
C BRT
C.BRT
G CHA
BOARDER
BOARDER
G CHA
B CHA
B CHA
BM
(MATHER)
B-SST618<U/C>-BM.

BM [MOTHER]

– BM BOARD –


BM
SONY
CN33
CN32
CN35
CN38
CN40
CN41
CN42
CN54
J31
J32
J33
J34
J35
J36
1-650-527-12
LENS.PROT
TX
TX
RX
RX
VIN SEL
SEL1
SEL2
SLOT SEL
SIRCS TOY2
GND
RGB/Y10.D
Y18./YC.D
CBL
IK.PROT
V.PROT
POWER CONT
H.STOP
FAN.PROT
GND
V.SAW
GND
V.PARA
GND
VEE
B7
B6
B5
B4
B3
B2
B1

7


CN33
CN32
CN41
CN31
J31
J32
J33
J34
J35
J36
1-650-527-12
GND
C
B
A
H.CENT
H.SIZE
SHARPNESS
C.BLK
+15.5V
+5.7V
-5.7V
-15.5V
NOR/TEST
INT/EXT
V.STOP
V.INV
BATT NG
POWER CONT
15
10
5
1
25
30

- ▨ : Pattern from the side which enables seeing.
- ▨ : Pattern of the rear side.

E [H.OUT]

E BOARD

IC	
IC1	B-1
IC2	C-2
IC3	C-3
IC101	F-6
IC103	H-9
IC104	G-10
IC105	G-10
IC106	F-9
IC107	F-12
IC108	F-13
IC109	G-13
IC110	G-12
IC111	D-4
IC112	B-7
IC113	H-12
IC114	G-8
IC115	F-10

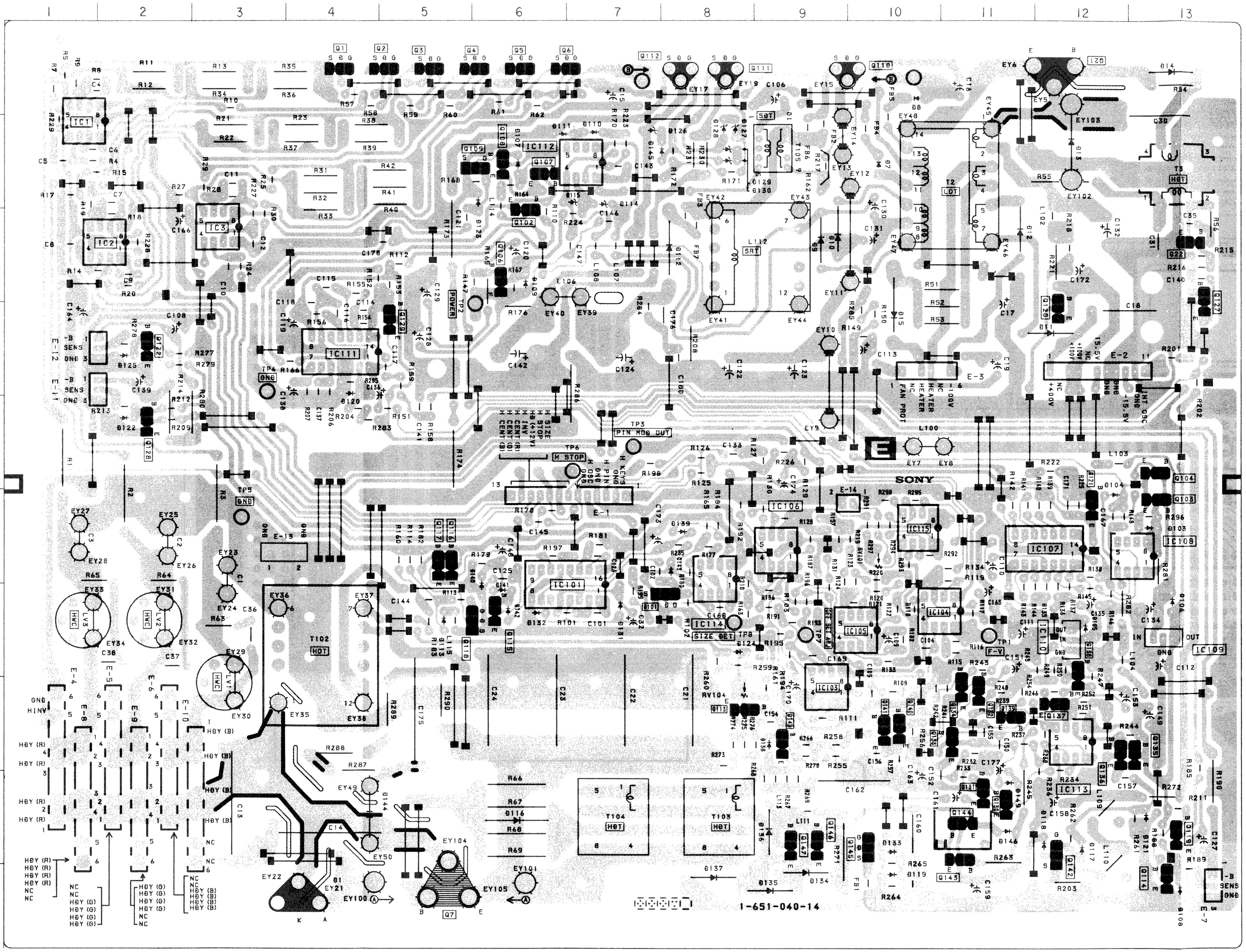
TRANSISTOR	
Q1	A-4
Q2	A-5
Q3	A-5
Q4	A-5
Q5	A-6
Q6	A-6
Q7	J-5
Q21	A-12
Q22	C-13
Q101	G-7
Q102	C-6
Q103	F-13
Q104	E-13
Q106	C-6
Q107	B-6
Q108	B-6
Q109	B-5
Q110	A-10
Q111	A-8
Q112	A-7
Q113	H-8
Q115	G-6
Q116	F-5
Q117	F-5
Q118	G-5
Q120	D-12
Q121	F-12
Q127	D-13
Q128	E-2
Q129	D-5
Q130	I-11
Q131	I-11
Q132	H-11
Q133	H-10
Q134	H-11
Q135	H-13
Q136	H-12
Q137	H-12
Q138	G-12
Q139	H-11
Q140	H-10
Q141	H-10
Q142	I-12
Q143	I-11
Q144	I-11
Q145	I-10
Q146	I-9
Q147	I-9
Q148	H-9

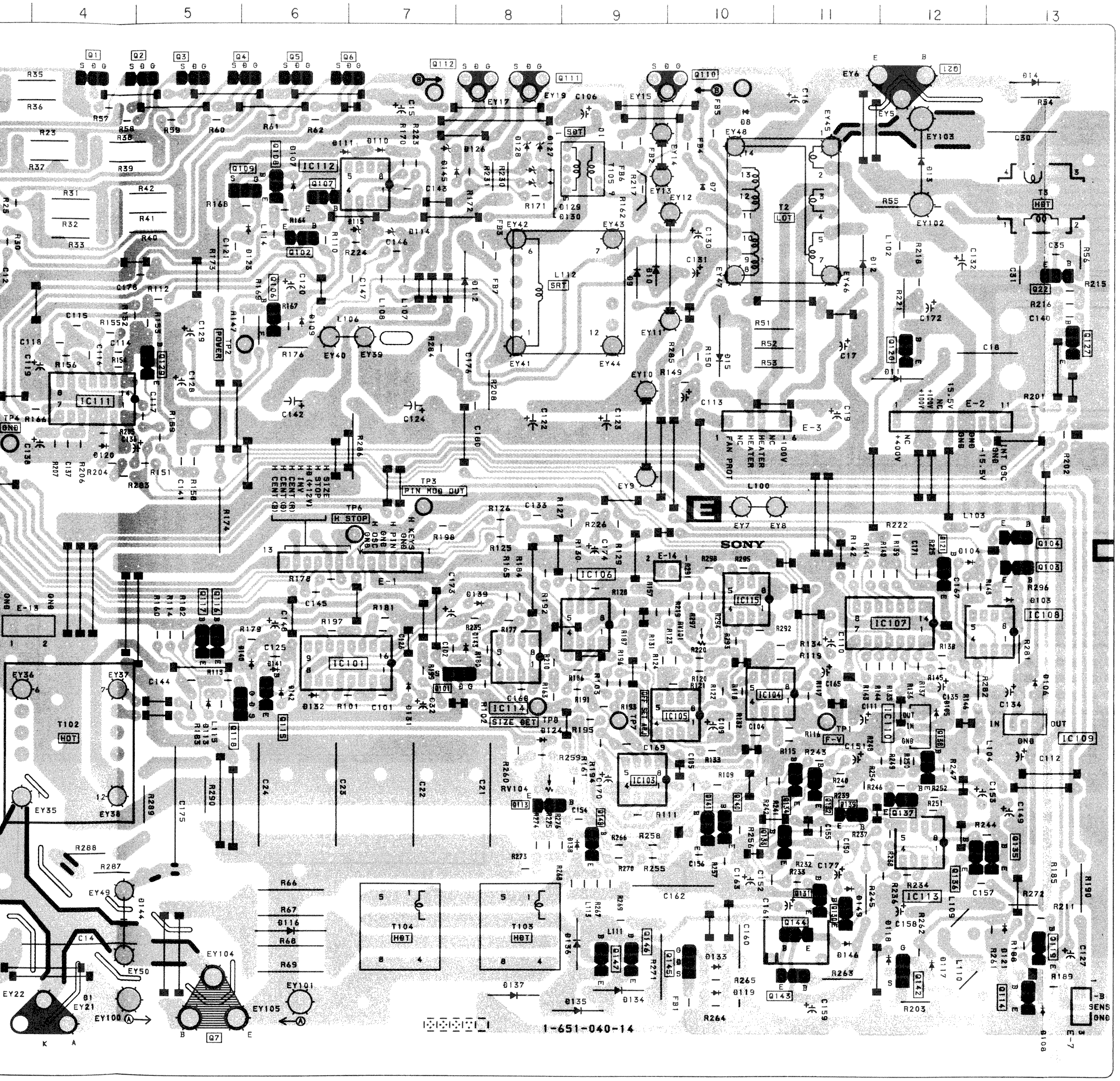
DIODE	
D1	J-4
D7	B-10
D8	A-10
D9	C-9
D10	C-9
D11	D-12
D12	C-11
D13	B-12
D14	A-13
D15	D-10
D103	F-13
D104	F-12
D105	G-12
D106	G-13
D107	B-6
D109	C-6
D110	B-7
D111	B-6
D112	C-8
D113	G-5
D114	B-7
D115	B-7
D116	I-6
D117	I-12
D118	I-12
D119	J-10
D120	D-4
D121	I-13
D122	E-2
D123	B-6
D124	G-8
D126	B-7
D127	B-8
D128	B-8
D129	B-8
D130	B-8
D131	G-7
D132	G-6
D133	I-10
D134	J-9
D135	J-9
D136	I-9
D137	J-8
D138	H-9
D139	F-8
D140	F-6
D141	G-6
D142	G-6
D143	F-8
D144	I-5
D145	B-7
D146	I-11
D149	I-11

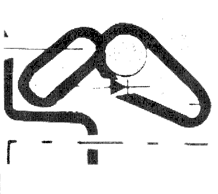
VARIABLE RESISTOR	
RV104	H-8

TEST POINT	
TP1	G-11
TP2	C-5
TP3	E-7
TP4	D-3
TP5	F-3
TP6	E-7
TP7	G-9
TP8	G-8

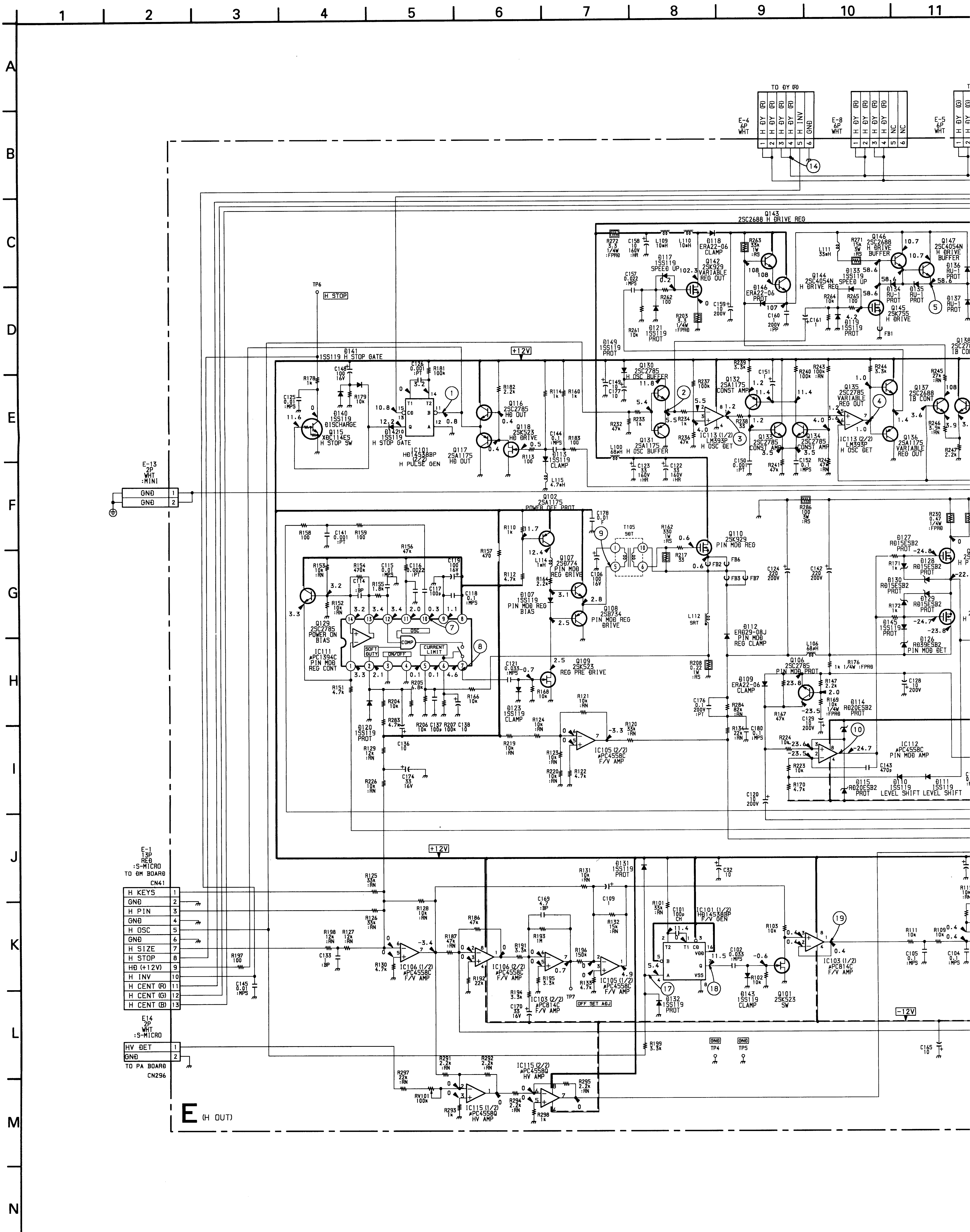
– E BOARD –

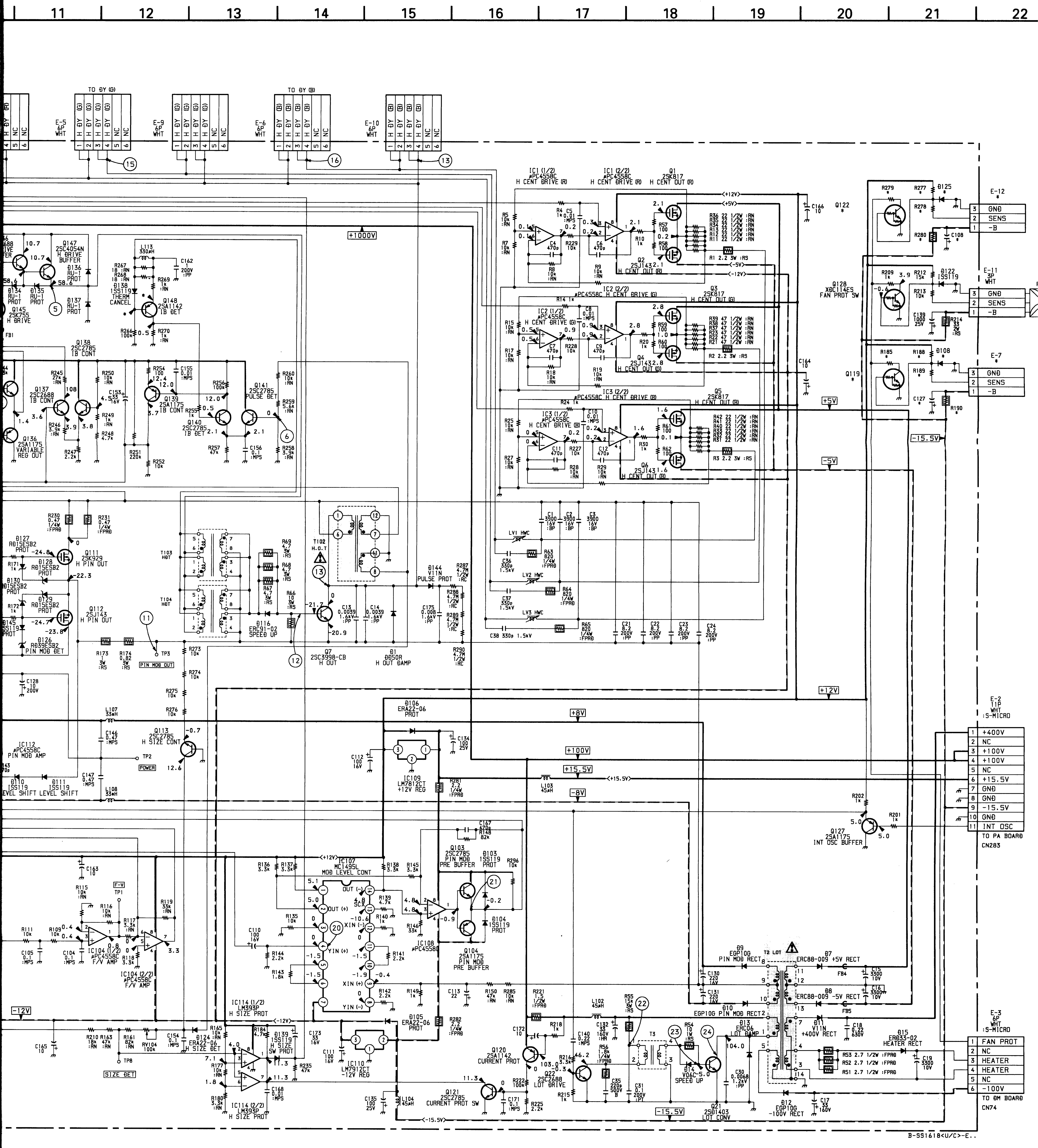

1
2
3
4
5
6
7
8
9
10
11
12
13
A
B
C
D
E
F
G
H
I
J
IC1
IC2
IC3
IC101
IC103
IC104
IC105
IC106
IC107
IC108
IC109
IC110
IC111
IC112
IC113
IC114
IC115
T102 HOT
T103 HBT
T104 HBT
T2 LOT
T3 HBT
L112 SRT
SONY
E
POWER
PIN MOD OUT
H STOP
SIZE SET
F-V
LV1 HWC
LV2 HWC
LV3 HWC
1-651-040-14

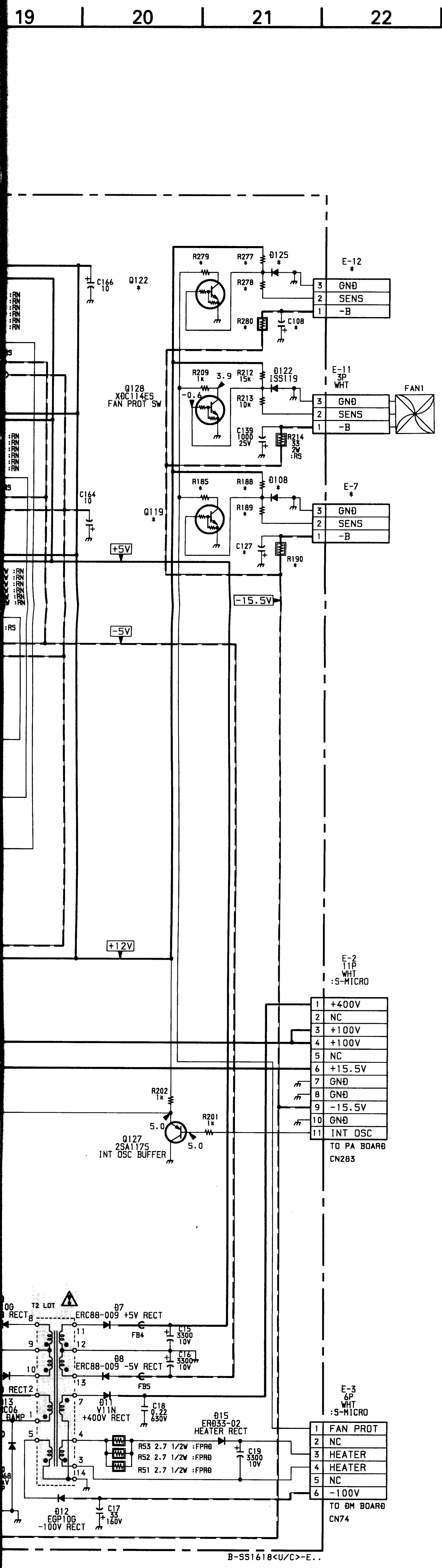

4
5
6
7
8
9
10
11
12
13
Q1
Q2
Q3
Q4
Q5
Q6
Q7
Q111
Q112
Q110
Q120
Q122
Q127
IC111
IC112
IC101
IC103
IC104
IC105
IC106
IC107
IC108
IC109
IC110
IC113
IC114
IC115
T102 HOT
T104 HOT
T103 HOT
T2 LOT
T5 HOT
T105
L112 SRT
SBT
POWER
TP2
TP3 PIN MOD OUT
TP6 H STOP
TP8
TP1 F-V
TP4 GND
SIZE SET
E-1
E-2
E-3
E-7
E-13
E-14
E
SONY
L100
EY6
EY9
EY10
EY35
EY36
EY37
EY38
EY50
EY100
EY101
EY102
EY103
EY104
EY105
GND
+400V
15.5V
-15.5V
INT OSC
FAN PROT
HEATER
H 100V
IN
OUT
SENS
1-651-040-14



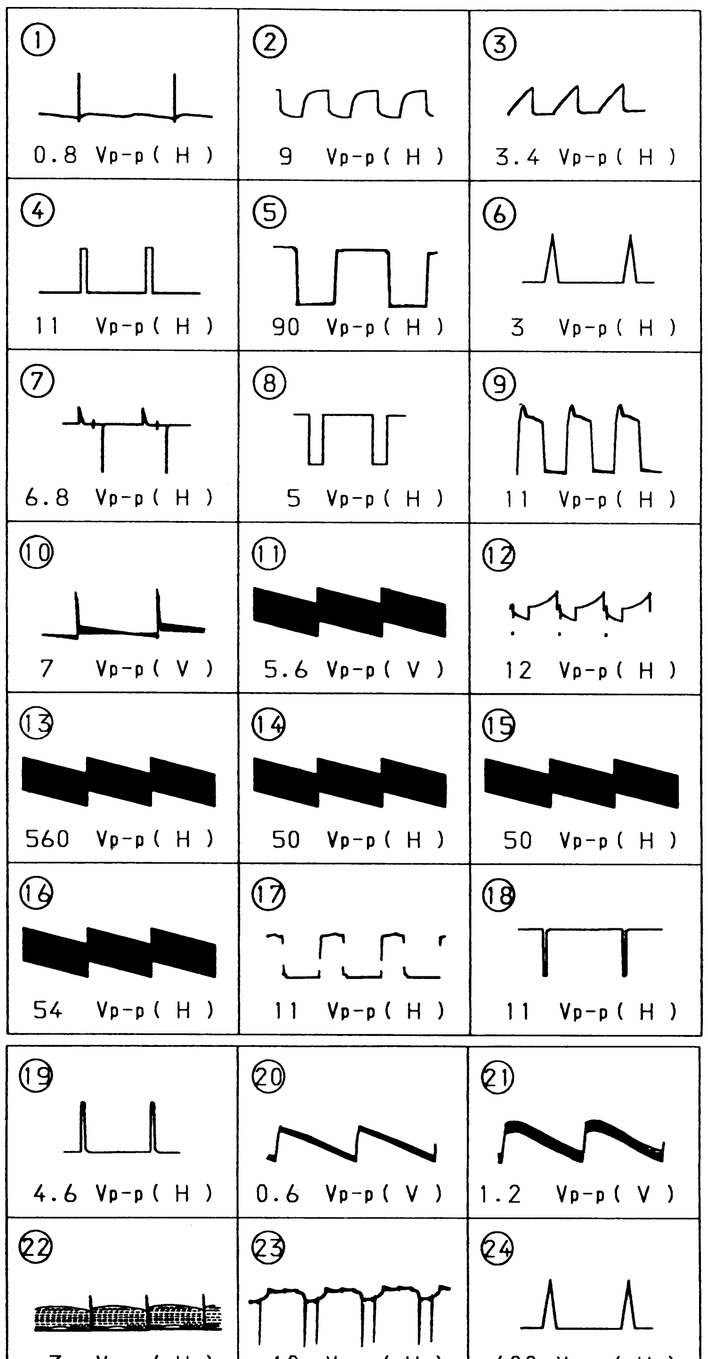
NOTE:
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.

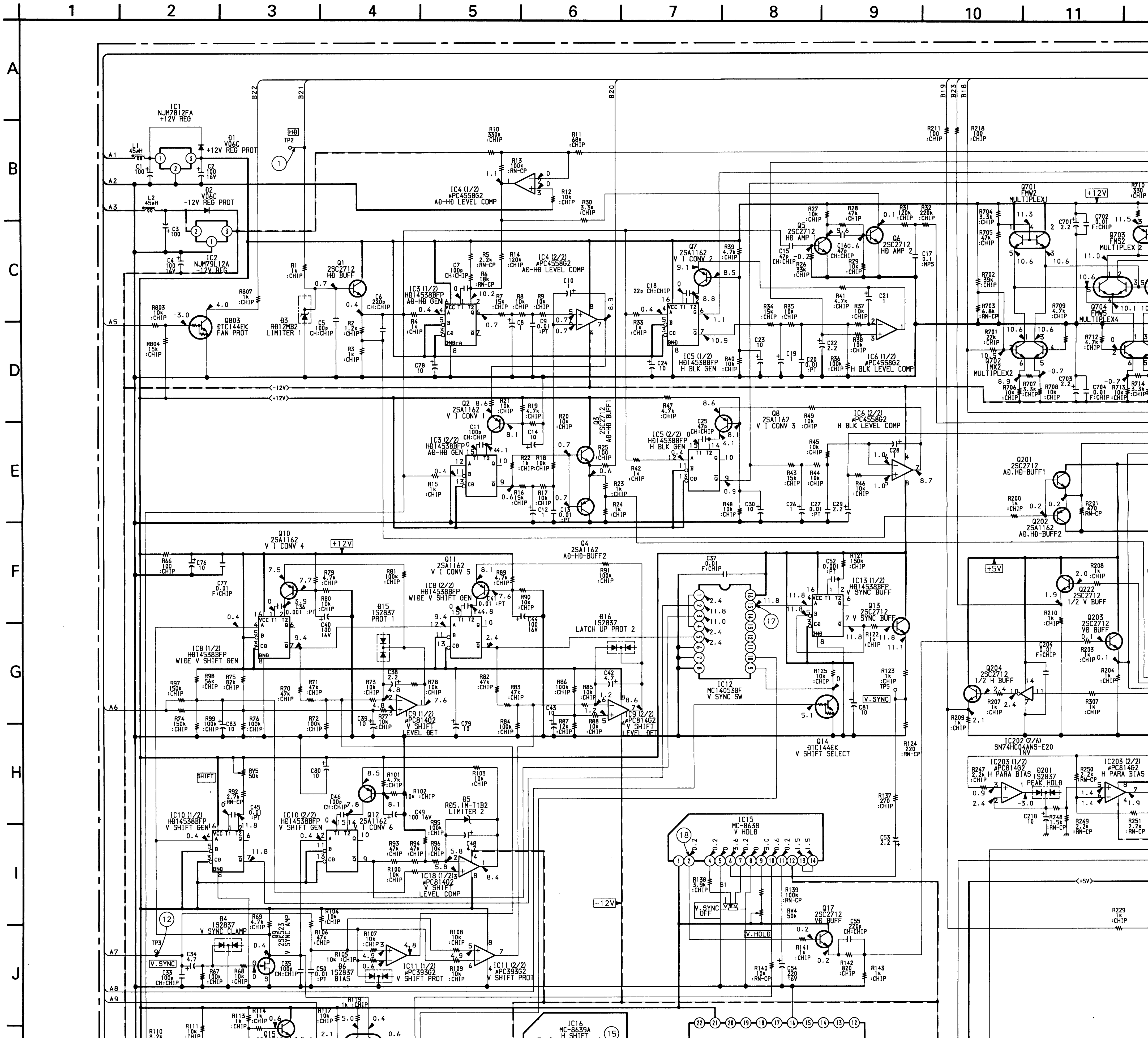

E (H OUT)
TO DY (R)
E-4 6P WHT
H DY (R)
H INV
GND
E-8 6P WHT
NC
E-5 6P WHT
H DY (G)
Q143 2SC2688 H DRIVE REG
Q118 ERA22-06 CLAMP
Q117 1SS119 SPEED UP
Q142 2SK929 VARIABLE REG OUT
Q146 ERA22-06 PROT
Q144 2SC4054N H DRIVE REG
Q133 1SS119 SPEED UP
Q146 2SC2688 H DRIVE BUFFER
Q147 2SC4054N H DRIVE BUFFER
Q136 RU-1 PROT
Q134 RU-1 PROT
Q135 RU-1 PROT
Q145 2SK755 H DRIVE
Q137 RU-1 PROT
Q119 1SS119 PROT
Q121 1SS119 PROT
Q149 1SS119 PROT
TP6
H STOP
Q141 1SS119 H STOP GATE
+12V
Q140 1SS119 DISCHARGE
Q115 XDC114ES H STOP SW
Q142 1SS119 H STOP GATE
IC101 HD14538BP (2/2) H PULSE GEN
Q116 2SC2785 HD OUT
Q117 2SA1175 HD OUT
Q118 2SK523 HD DRIVE
Q113 1SS119 CLAMP
Q130 2SC2785 H OSC BUFFER
Q131 2SA1175 H OSC BUFFER
Q132 2SA1175 CONST AMP
IC113 (1/2) LM393P H OSC DET
Q133 2SC2785 CONST AMP
Q134 2SC2785 CONST AMP
Q135 2SC2785 VARIABLE REG OUT
IC113 (2/2) LM393P H OSC DET
Q136 2SA1175 VARIABLE REG OUT
Q137 2SC2688 IB CONT
E-13 2P WHT :MINI
GND
Q102 2SA1175 POWER OFF PROT
Q107 2SB774 PIN MOD REG DRIVE
Q107 1SS119 PIN MOD REG BIAS
Q108 2SB734 PIN MOD REG DRIVE
Q110 2SK929 PIN MOD REG
T105 SBT
Q129 2SC2785 POWER ON BIAS
IC111 μPC1394C PIN MOD REG CONT
OSC
COMP
SOFT DUTY
ON/OFF
CURRENT LIMIT
Q109 2SK523 REG PRE DRIVE
Q123 1SS119 CLAMP
Q120 1SS119 PROT
IC105 (2/2) μPC4558C F/V AMP
L112 SRT
Q112 ERQ29-08J PIN MOD REG CLAMP
Q106 2SC2785 PIN MOD PROT
Q109 ERA22-06 CLAMP
Q114 RD20ESB2 PROT
Q127 RD15ESB2 PROT
Q128 RD15ESB2 PROT
Q130 RD15ESB2 PROT
Q129 RD15ESB2 PROT
Q145 1SS119 PROT
Q126 RD39ESB2 PIN MOD DET
IC112 μPC4558C PIN MOD AMP
Q115 RD20ESB2 PROT
Q110 1SS119 LEVEL SHIFT
Q111 1SS119 LEVEL SHIFT
E-1 13P RED :S-MICRO TO DM BOARD CN41
H KEYS
H PIN
H OSC
H SIZE
H STOP
HD (+12V)
H INV
H CENT (R)
H CENT (G)
H CENT (B)
IC106 (1/2) μPC4558C F/V AMP
IC106 (2/2) μPC4558C F/V AMP
IC103 (2/2) μPC814C F/V AMP
TP7
OFF SET ADJ
IC105 (1/2) μPC4558C F/V AMP
Q131 1SS119 PROT
IC101 (1/2) HD14538BP F/V GEN
Q132 1SS119 PROT
Q143 1SS119 CLAMP
Q101 2SK523 SW
IC103 (1/2) μPC814C F/V AMP
-12V
TP4
TP5
E14 2P WHT :S-MICRO
HV DET
TO PA BOARD CN296
IC115 (2/2) μPC4558Q HV AMP
IC115 (1/2) μPC4558Q HV AMP
RV101 100k


11
12
13
14
15
16
17
18
19
20
21
22
TO ΘY (G)
TO ΘY (B)
E-5 6P WHT
E-9 6P WHT
E-6 6P WHT
E-10 6P WHT
IC1 (1/2) μPC4558C H CENT DRIVE (R)
IC1 (2/2) μPC4558C H CENT DRIVE (R)
Q1 2SK817 H CENT OUT (R)
Q2 2SJ143 H CENT OUT (R)
IC2 (1/2) μPC4558C H CENT DRIVE (G)
IC2 (2/2) μPC4558C H CENT DRIVE (G)
Q3 2SK817 H CENT OUT (G)
Q4 2SJ143 H CENT OUT (G)
IC3 (1/2) μPC4558C H CENT DRIVE (B)
IC3 (2/2) μPC4558C H CENT DRIVE (B)
Q5 2SK817 H CENT OUT (B)
Q6 2SJ143 H CENT OUT (B)
+1000V
Q147 2SC4054N H DRIVE BUFFER
D136 RU-1 PROT
D137 RU-1 PROT
D134 RU-1 PROT
D135 RU-1 PROT
Q145 2SK755 H DRIVE
D138 1SS119 THERM CANCEL
Q148 2SA1142 IB DET
Q138 2SC2785 IB CONT
Q137 2SC2688 IB CONT
Q136 2SA1175 VARIABLE REG OUT
Q139 2SA1175 IB CONT
Q140 2SC2785 IB DET
Q141 2SC2785 PULSE DET
Q128 XBC114ES FAN PROT SW
Q122
Q119
E-12
E-11 3P WHT
E-7
GND
SENS
-B
D127 RD15ESB2 PROT
D128 RD15ESB2 PROT
D129 RD15ESB2 PROT
D130 RD15ESB2
D126 RD39ESB2 PIN MOD DET
Q111 2SK929 H PIN OUT
Q112 2SJ143 H PIN OUT
T103 HDT
T104 HDT
D116 ERC91-02 SPEED UP
T102 H.O.T
Q7 2SC3998-CB H OUT
D144 V11N PULSE PROT
D1 D0S0R H OUT DAMP
LV1 HWC
LV2 HWC
LV3 HWC
PIN MOD OUT
TP3
IC112 μPC4558C PIN MOD AMP
D110 1SS119 LEVEL SHIFT
D111 1SS119 LEVEL SHIFT
Q113 2SC2785 H SIZE CONT
TP2
POWER
D106 ERA22-06 PROT
IC109 LM7812CT +12V REG
+8V
+100V
+15.5V
-8V
+12V
+5V
-5V
-15.5V
E-2 11P WHT :S-MICRO
+400V
NC
+100V
+100V
NC
+15.5V
GND
GND
-15.5V
GND
INT OSC
TO PA BOARD CN203
Q127 2SA1175 INT OSC BUFFER
IC107 MC1495L MOD LEVEL CONT
Q103 2SC2785 PIN MOD PRE BUFFER
D103 1SS119 PROT
D104 1SS119 PROT
Q104 2SA1175 PIN MOD PRE BUFFER
IC108 μPC4558C
F-V
TP1
IC104 (1/2) μPC4558C F/V AMP
IC104 (2/2) μPC4558C F/V AMP
-12V
IC114 (1/2) LM393P H SIZE PROT
IC114 (2/2) LM393P H SIZE PROT
D124 ERA22-06 H SIZE DET
D139 1SS119 H SIZE SW PROT
SIZE DET
TP8
D105 ERA22-06 PROT
IC110 LM7912CT -12V REG
Q121 2SC2785 CURRENT PROT SW
Q120 2SA1142 CURRENT PROT
Q22 2SC2688 LOT DRIVE
T3
D14 V06C SPEED UP
Q21 2SD1403 LOT CONV
D13 ERC06 LOT DAMP
T2 LOT
D9 EGP10G PIN MOD RECT
D10 EGP10G PIN MOD RECT2
D7 ERC88-009 +5V RECT
D8 ERC88-009 -5V RECT
D11 V11N +400V RECT
D15 ERB33-02 HEATER RECT
D12 EGP10G -100V RECT
E-3 6P WHT :S-MICRO
FAN PROT
NC
HEATER
HEATER
NC
-100V
TO BM BOARD CN74
B-SS1618<U/C>-E..


19
20
21
22
23
24
25
26
R279
R277
D125
E-12
R278
3 GND
2 SENS
1 -B
C166 10
Q122
R280
C108
R209 1k
3.9
R212 15k
D122 ISS119
E-11 3P WHT
FAN1
Q128 XDC114ES FAN PROT SW
-0.6
R213 10k
C139 1000 25V
R214 33 2W :RS
R185
R188
D108
E-7
R189
C164 10
Q119
C127
R190
+5V
-15.5V
-5V
+12V
E-2 11P WHT :S-MICRO
1 +400V
2 NC
3 +100V
4 +100V
5 NC
6 +15.5V
7 GND
8 GND
9 -15.5V
10 GND
11 INT OSC
TO PA BOARD CN283
R202 1k
R201 1k
5.0
Q127 2SA1175 INT OSC BUFFER
T2 LOT
D7 ERC88-009 +5V RECT
FB4
C15 3300 10V
C16 3300 10V
D8 ERC88-009 -5V RECT
FB5
D11 V11N +400V RECT
C18 0.22 630V
D15 ERD33-02 HEATER RECT
R53 2.7 1/2W :FPRD
R52 2.7 1/2W :FPRD
R51 2.7 1/2W :FPRD
C19 3300 10V
E-3 6P WHT :S-MICRO
1 FAN PROT
2 NC
3 HEATER
4 HEATER
5 NC
6 -100V
TO DM BOARD CN74
D12 EGP10G -100V RECT
C17 33 160V
B-SS1618<U/C>-E..

E BOARD


① 0.8 Vp-p (H)
② 9 Vp-p (H)
③ 3.4 Vp-p (H)
④ 11 Vp-p (H)
⑤ 90 Vp-p (H)
⑥ 3 Vp-p (H)
⑦ 6.8 Vp-p (H)
⑧ 5 Vp-p (H)
⑨ 11 Vp-p (H)
⑩ 7 Vp-p (V)
⑪ 5.6 Vp-p (V)
⑫ 12 Vp-p (H)
⑬ 560 Vp-p (H)
⑭ 50 Vp-p (H)
⑮ 50 Vp-p (H)
⑯ 54 Vp-p (H)
⑰ 11 Vp-p (H)
⑱ 11 Vp-p (H)
⑲ 4.6 Vp-p (H)
⑳ 0.6 Vp-p (V)
㉑ 1.2 Vp-p (V)
㉒ 3 Vp-p (H)
㉓ 10 Vp-p (H)
㉔ 600 Vp-p (H)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A
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K
L
M
N
O
IC1 NJM7812FA +12V REG
Q1 V06C +12V REG PROT
Q2 V06C -12V REG PROT
IC2 NJM79L12A -12V REG
Q803 DTC144EK FAN PROT
Q3 RD12MB2 LIMITER 1
Q1 2SC2712 HD BUFF
IC4 (1/2) μPC4558G2 AD-HD LEVEL COMP
IC4 (2/2) μPC4558G2 AD-HD LEVEL COMP
IC3 (1/2) HD14538BFP AD-HD GEN 1
IC3 (2/2) HD14538BFP AD-HD GEN 1
Q2 2SA1162 V I CONV 1
Q3 2SC2712 AD-HD BUFF1
Q4 2SA1162 AD-HD-BUFF2
Q7 2SA1162 V I CONV 2
IC5 (1/2) HD14538BFP H BLK GEN
IC5 (2/2) HD14538BFP H BLK GEN
Q5 2SC2712 HD AMP
Q6 2SC2712 HD AMP 2
IC6 (1/2) μPC4558G2 H BLK LEVEL COMP
IC6 (2/2) μPC4558G2 H BLK LEVEL COMP
Q8 2SA1162 V I CONV 3
Q701 FMW2 MULTIPLEX1
Q702 IMX2 MULTIPLEX2
Q703 FMS2 MULTIPLEX 2
Q704 FMW5 MULTIPLEX4
Q201 2SC2712 AD-BUFF1
Q202 2SA1162 AD-HD-BUFF2
Q10 2SA1162 V I CONV 4
IC8 (1/2) HD14538BFP WIDE V SHIFT GEN
Q11 2SA1162 V I CONV 5
IC8 (2/2) HD14538BFP WIDE V SHIFT GEN
D15 1S2837 PROT 1
D16 1S2837 LATCH UP PROT 2
IC9 (1/2) μPC814G2 V SHIFT LEVEL DET
IC9 (2/2) μPC814G2 V SHIFT LEVEL DET
IC12 MC14053BF V SYNC SW
IC13 (1/2) HD14538BFP V SYNC BUFF
Q13 2SC2712 V SYNC BUFF
Q14 DTC144EK V SHIFT SELECT
Q222 2SC2712 1/2 V BUFF
Q203 2SC2712 VD BUFF
Q204 2SC2712 1/2 H BUFF
IC202 (2/6) SN74HC04ANS-E20 INV
IC203 (1/2) μPC814G2 H PARA BIAS
D201 1S2837 PEAK HOLD
IC203 (2/2) μPC814G2 H PARA BIAS
IC10 (1/2) HD14538BFP V SHIFT GEN
IC10 (2/2) HD14538BFP V SHIFT GEN
Q12 2SA1162 V I CONV 6
D5 RD5.1M-T1B2 LIMITER 2
IC18 (1/2) μPC814G2 V SHIFT LEVEL COMP
IC15 MC-8638 V HOLD
D4 1S2837 V SYNC CLAMP
Q9 2SC2712 SYNC AMP
IC11 (1/2) μPC393G2 V SHIFT PROT
IC11 (2/2) μPC393G2 V SHIFT PROT
D6 1S2837 BIAS
Q17 2SC2712 VD BUFF
Q15 2SC2712 HF-HD BUFF
IC14 (2/2) μPC393G2 SW
Q16 FMW5 V SHIFT PROT
IC16 MC-8639A H SHIFT
IC22 μPC1377C AFC
Q205 FMW5 V SIN SW 1
Q206 2SA1162
Q18 2SC2712 H SYNC BUFF
D9 ERA22-06 H OUT PROT
Q21 2SC2712 OSC BUFF
Q207 FMS1 V SIN SW 2
Q208 2SC2712
IC13 (2/2) HD14538BFP PULSE GEN
IC20 (2/2) μPC814G2 F V CONV
IC20 (1/2) μPC814G2 F V CONV
D10 1S2837 PEAK HOLD
D11 1S2837 SPEED UP
D13 1S2837 DISCHARGE
Q19 FMS2 CURRENT MIRROR1
Q20 FMW5 CURRENT MIRROR2
Q22 2SC2712 THERM CANCEL 1
IC21 (1/2) μPC814G2 F V BUFF
D8 1S2835 GATE 2
D7 1S2837 GATE 1
IC14 (1/2) μPC393G2 SW
IC202 (1/6) SN74HC04ANS-E20 INV
Q209 FMW5 H SIN SW 1
Q211 FMS1 H SIN SW 2
Q603 2SC2712 H SAW BUFF
IC701 (1/2) μPC814G2 BUFF
D601
D602 1S2837 THERM CANCEL 2
Q601 FMW5 H SAW GAIN CONT1
Q602 FMW2 H SAW GAIN CONT2
IC202 (3/6) SN74HC04ANS-E20
IC202 (4/6) SN74HC04ANS-E20
IC202 (5/6) SN74HC04ANS-E20
IC202 (6/6) SN74HC04ANS-E20
IC18 (2/2) μPC814G2
IC701 (2/2) μPC814G2
IC207 (2/2) μPC4558G2
IC21 (2/2) μPC814G2
HD
TP2
TP3
TP4
TP6
TP7
V.SYNC
H.SYNC
HFHD
SHIFT
V.HOLD
V.SYNC OFF
HD OFF
VIDEO AFC
AFC
FOCUS
F-V
+12V
-12V
+5V
B19
B20
B21
B22
B23
B18
A1
A2
A3
A5
A6
A7
A8
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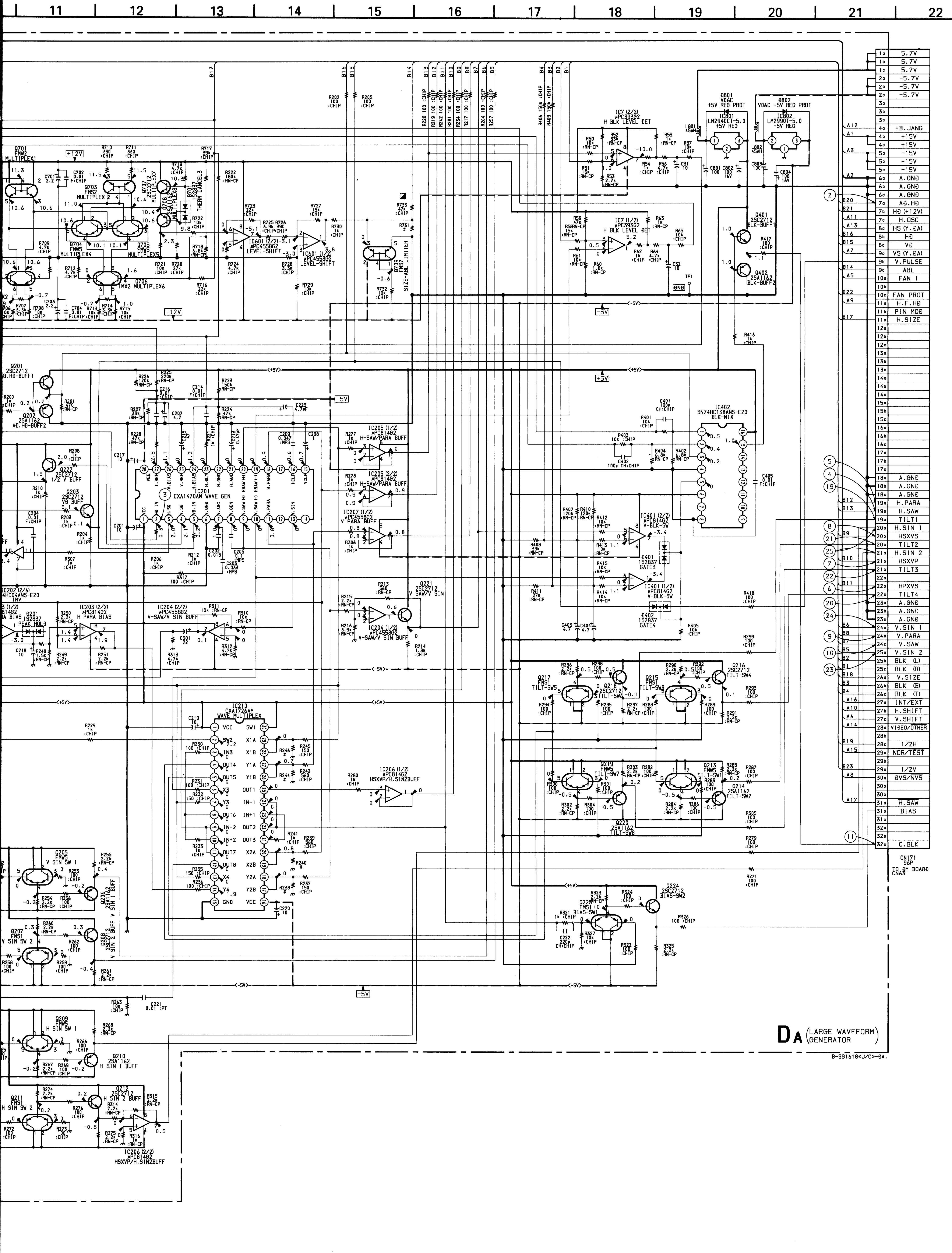
A17

Schematic diagram

← E **board**

Schematic diagram

DA **board →**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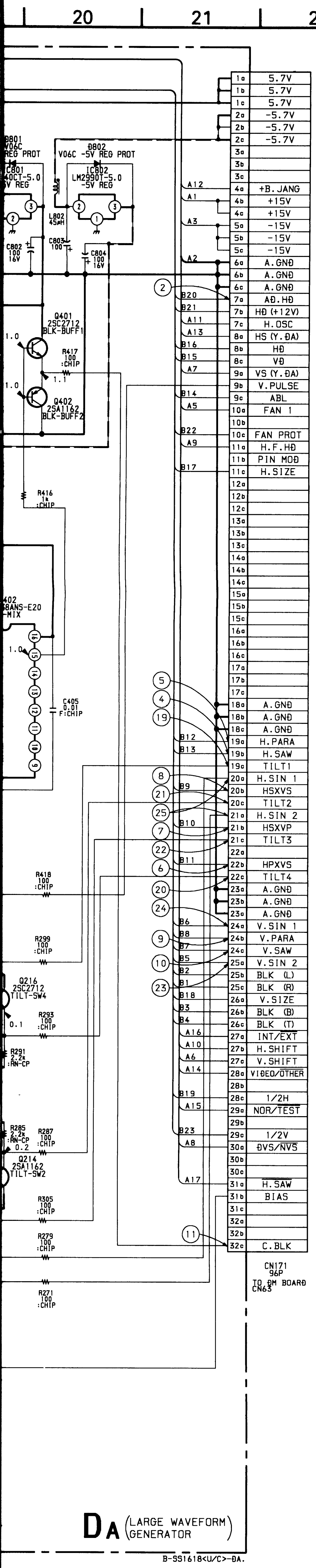
Q701 FMW2 MULTIPLEX1
Q703 FMS2 MULTIPLEX
Q704 FMW5 MULTIPLEX4
Q705 FMW5 MULTIPLEX5
Q706 MX2 MULTIPLEX6
Q707 2SC2712 MULTIPLEX7
Q708 2SA1162 MULTIPLEX8
D701 1S2837 THERM CANCEL3
IC601 (2/2) μPC4558G2 LEVEL-SHIFT
IC601 (1/2) μPC4558G2 LEVEL-SHIFT
Q709 FMS2 SIZE-ABL LIMITER
IC7 (2/2) μPC393G2 H BLK LEVEL DET
IC7 (1/2) μPC393G2 H BLK LEVEL DET
D801 V06C +5V REG PROT
IC801 LM2940CT-5.0 +5V REG
D802 V06C -5V REG PROT
IC802 LM2990T-5.0 -5V REG
Q401 2SC2712 BLK-BUFF1
Q402 2SA1162 BLK-BUFF2
Q201 2SC2712 AD.HD-BUFF1
Q202 2SA1162 AD.HD-BUFF2
Q222 2SC2712 1/2 V BUFF
Q203 2SC2712 VD BUFF
IC201 CXA1470AM WAVE GEN
IC205 (1/2) μPC814G2 H-SAW/PARA BUFF
IC205 (2/2) μPC814G2 H-SAW/PARA BUFF
IC207 (1/2) μPC4558G2 V PARA BUFF
IC402 SN74HC138ANS-E20 BLK-MIX
IC401 (2/2) μPC814G2 V-BLK-SW
IC401 (1/2) μPC814G2 V-BLK-SW
D401 1S2837 GATE3
D402 1S2837 GATE4
IC202 (2/6) 74HC04ANS-E20 INV
D201 1S2837 PEAK HOLD
IC203 (2/2) μPC814G2 H PARA BIAS
IC204 (2/2) μPC4558G2 V-SAW/V SIN BUFF
IC204 (1/2) μPC4558G2 V-SAW/V SIN BUFF
Q221 2SC2712 V SAW/V SIN
Q217 FMS1 TILT-SW5
Q218 2SC2712 TILT-SW6
Q215 FMS1 TILT-SW3
Q216 2SC2712 TILT-SW4
IC210 CXA1726AM WAVE MULTIPLEX
IC206 (1/2) μPC814G2 HSXVP/H.SIN2BUFF
Q219 FMW5 TILT-SW7
Q213 FMW5 TILT-SW1
Q214 2SA1162 TILT-SW2
Q220 2SA1162 TILT-SW8
Q205 FMW5 V SIN SW 1
Q206 2SA1162 V SIN 1 BUFF
Q207 FMS1 V SIN SW 2
Q208 2SA1162 V SIN 2 BUFF
Q223 FMS1 BIAS-SW1
Q224 2SC2712 BIAS-SW2
Q209 FMW5 H SIN SW 1
Q210 2SA1162 H SIN 1 BUFF
Q211 FMS1 H SIN SW 2
Q212 2SC2712 H SIN 2 BUFF
IC206 (2/2) μPC814G2 HSXVP/H.SIN2BUFF
+12V
-12V
+5V
-5V
GND
TP1
1a 5.7V
1b 5.7V
1c 5.7V
2a -5.7V
2b -5.7V
2c -5.7V
4a +B.JANG
4b +15V
4c +15V
5a -15V
5b -15V
5c -15V
6a A.GND
6b A.GND
6c A.GND
7a AD.HD
7b HD (+12V)
7c H.OSC
8a HS (Y.DA)
8b HD
8c VD
9a VS (Y.DA)
9b V.PULSE
9c ABL
10a FAN 1
10c FAN PROT
11a H.F.HD
11b PIN MOD
11c H.SIZE
18a A.GND
18b A.GND
18c A.GND
19a H.PARA
19b H.SAW
19c TILT1
20a H.SIN 1
20b HSXVS
20c TILT2
21a H.SIN 2
21b HSXVP
21c TILT3
22b HPXVS
22c TILT4
23a A.GND
23b A.GND
23c A.GND
24a V.SIN 1
24b V.PARA
24c V.SAW
25a V.SIN 2
25b BLK (L)
25c BLK (R)
26a V.SIZE
26b BLK (B)
26c BLK (T)
27a INT/EXT
27b H.SHIFT
27c V.SHIFT
28a VIDEO/OTHER
28c 1/2H
29a NOR/TEST
29c 1/2V
30a DVS/NVS
31a H.SAW
31b BIAS
32c C.BLK
CN171 96P TO GM BOARD CN63

DA (LARGE WAVEFORM GENERATOR)

B-SS1618<U/C>-DA.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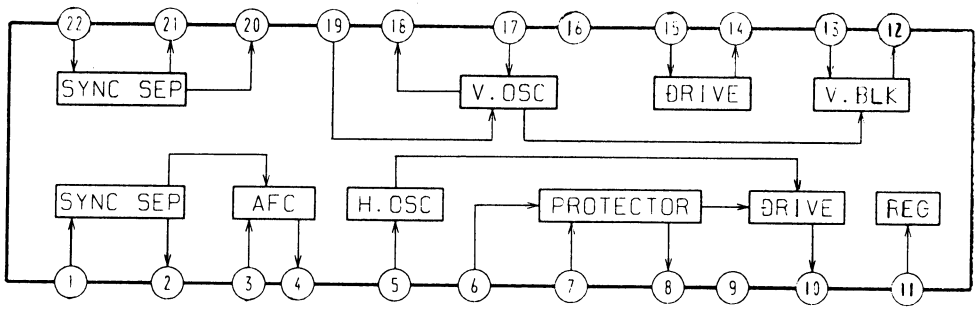
D801
V06C
REG PROT
IC801
40CT-5.0
5V REG
D802
V06C -5V REG PROT
IC802
LM2990T-5.0
-5V REG
L802
45μH
C802
100
16V
C803
100
C804
100
16V
Q401
2SC2712
BLK-BUFF1
R417
100
:CHIP
Q402
2SA1162
BLK-BUFF2
R416
1k
:CHIP
1.0
1.1
402
8ANS-E20
-MIX
C405
0.01
F:CHIP
R418
100
:CHIP
R299
100
:CHIP
Q216
2SC2712
TILT-SW4
R293
100
:CHIP
0.1
R291
2.2k
:RN-CP
R285
2.2k
:RN-CP
R287
100
:CHIP
0.2
Q214
2SA1162
TILT-SW2
R305
100
:CHIP
R279
100
:CHIP
R271
100
:CHIP
1a 5.7V
1b 5.7V
1c 5.7V
2a -5.7V
2b -5.7V
2c -5.7V
4a +B.JANG
4b +15V
4c +15V
5a -15V
5b -15V
5c -15V
6a A.GND
6b A.GND
6c A.GND
7a AD.HD
7b HD (+12V)
7c H.OSC
8a HS (Y.DA)
8b HD
8c VD
9a VS (Y.DA)
9b V.PULSE
9c ABL
10a FAN 1
10c FAN PROT
11a H.F.HD
11b PIN MOD
11c H.SIZE
18a A.GND
18b A.GND
18c A.GND
19a H.PARA
19b H.SAW
19c TILT1
20a H.SIN 1
20b HSXVS
20c TILT2
21a H.SIN 2
21b HSXVP
21c TILT3
22b HPXVS
22c TILT4
23a A.GND
23b A.GND
23c A.GND
24a V.SIN 1
24b V.PARA
24c V.SAW
25a V.SIN 2
25b BLK (L)
25c BLK (R)
26a V.SIZE
26b BLK (B)
26c BLK (T)
27a INT/EXT
27b H.SHIFT
27c V.SHIFT
28a VIDEO/OTHER
28c 1/2H
29a NOR/TEST
29c 1/2V
30a DVS/NVS
31a H.SAW
31b BIAS
32c C.BLK
CN171
96P
TO DM BOARD
CN63
DA (LARGE WAVEFORM GENERATOR)
B-SS1618<U/C>-DA.

DA BOARD IC22 μPC1377C


SYNC SEP
V.OSC
DRIVE
V.BLK
SYNC SEP
AFC
H.OSC
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DRIVE
REG
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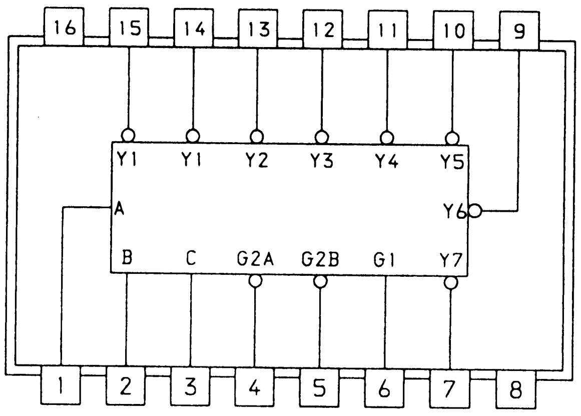
DA BOARD IC402 SN74HC138NS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12
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Y1
Y1
Y2
Y3
Y4
Y5
A
Y6
B
C
G2A
G2B
G1
Y7
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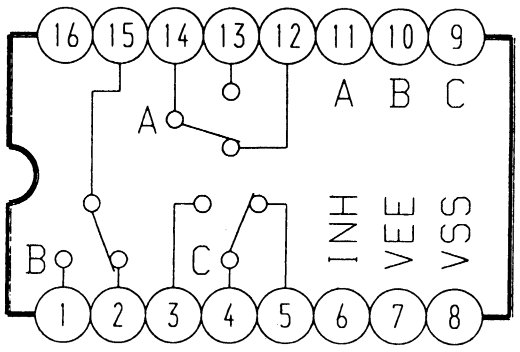
DA BOARD IC12 MC14053BF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A
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INH
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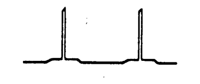
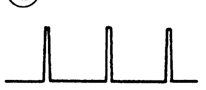
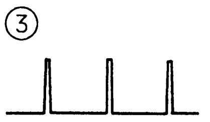
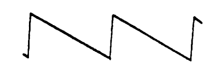
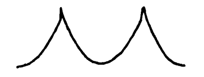
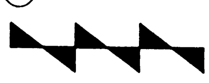
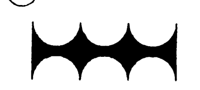
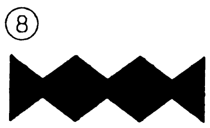
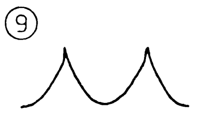
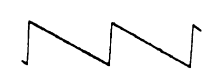
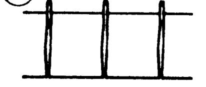
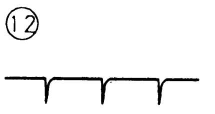
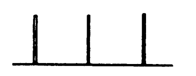
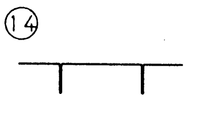
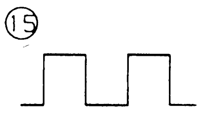
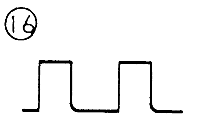
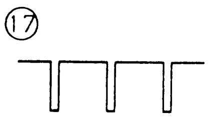
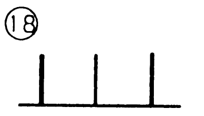
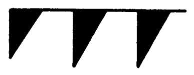
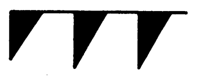
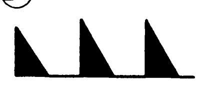
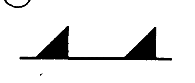
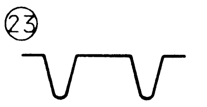
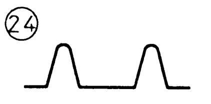
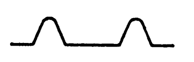
DA BOARD

①  12 Vp-p (H)	②  11.5 Vp-p (H)	③  6.5 Vp-p (H)
④  2.3 Vp-p (H)	⑤  3.0 Vp-p (H)	⑥  4.7 Vp-p (V)
⑦  4.4 Vp-p (V)	⑧  2.6 Vp-p (V)	⑨  2.3 Vp-p (V)
⑩  2.6 Vp-p (V)	⑪  4.5 Vp-p (V)	⑫  5.3 Vp-p (V)
⑬  12 Vp-p (H)	⑭  5.3 Vp-p (H)	⑮  1.5 Vp-p (H)
⑯  12.3 Vp-p (H)	⑰  12 Vp-p (H)	⑱  9.5 Vp-p (V)

⑲  1.2 Vp-p (V)	⑳  1.3 Vp-p (V)	㉑  1.1 Vp-p (V)
㉒  1.2 Vp-p (V)	㉓  1.1 Vp-p (V)	㉔  1.1 Vp-p (V)
㉕  1.3 Vp-p (H)		

DA

[LARGE WAVEFORM GENERATOR]

DA BOARD (COMPONENT SIDE)

IC	
IC1	E-7
IC2	E-8
IC4	A-7
IC6	B-6
IC7	B-1
IC9	C-7
IC11	D-5
IC12	B-8
IC14	B-8
IC15	A-2
IC16	E-7
IC18	C-7
IC19	C-7
IC20	C-8
IC21	C-7
IC22	D-8
IC201	C-2
IC202	E-2
IC203	B-2
IC204	C-3
IC205	D-2
IC206	B-3
IC207	D-2
IC210	B-2
IC401	E-1
IC402	E-2
IC601	A-1
IC701	E-8
IC801	A-7
IC802	D-6

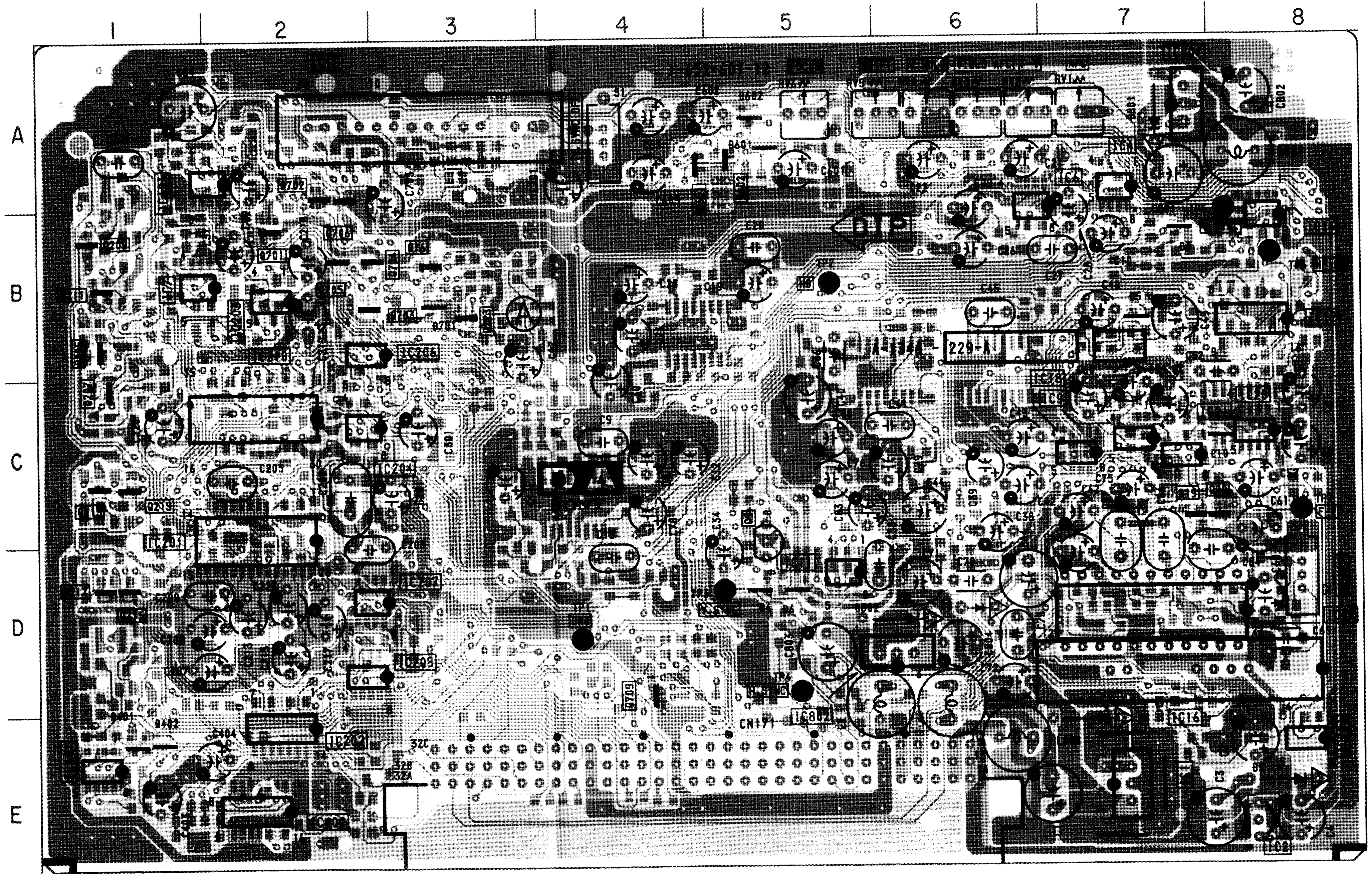
TRANSISTOR	
Q9	C-5
Q16	B-3
Q19	C-7
Q20	C-8
Q205	B-1
Q207	C-1
Q209	B-1
Q211	B-1
Q213	C-1
Q215	D-1
Q217	D-1
Q219	C-1
Q223	B-3
Q601	A-4
Q602	A-5
Q701	B-2
Q702	A-2
Q703	B-3
Q704	B-3
Q705	B-2
Q706	B-2
Q709	D-4

DIODE	
D1	E-7
D2	E-8
D3	B-7
D4	D-5
D5	B-7
D6	D-5
D9	D-6
D10	C-8
D401	E-1
D402	E-1
D601	A-5
D602	A-5
D701	B-3
D801	A-7
D802	D-6

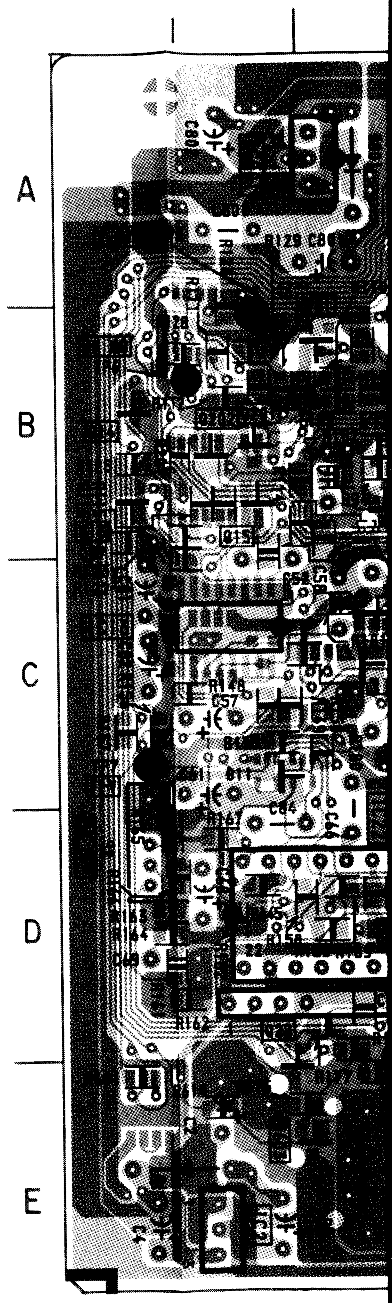
VARIABLE RESISTOR	
RV1	A-7
RV2	A-6
RV3	A-6
RV4	A-6
RV5	A-6
RV6	A-5

TEST POINT	
TP1	D-4
TP2	B-5
TP3	D-5
TP4	D-5
TP5	B-8
TP6	B-8
TP7	C-8

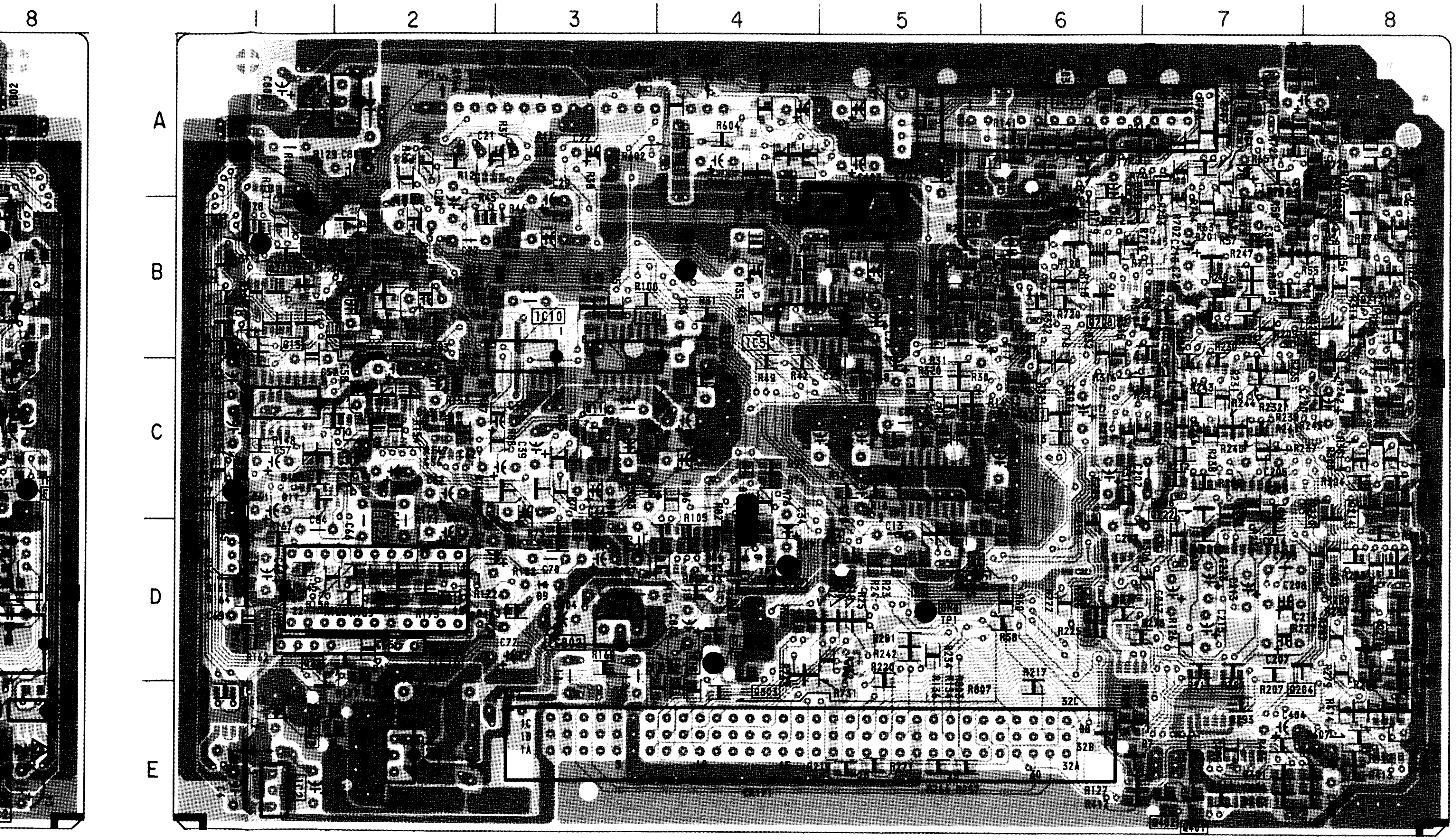
– DA BOARD – <Component Side>



<Conductor Side>



<Conductor Side>



DA BOARD (CONDUCTOR SIDE)

IC	
IC1	E-2
IC2	E-1
IC3	C-5
IC5	B-4
IC8	B-3
IC10	B-3
IC13	C-1
IC15	A-6
IC16	D-2
IC22	D-2
IC801	A-2
IC802	D-3

TRANSISTOR	
Q1	B-1
Q2	D-5
Q3	D-5
Q4	D-5
Q5	B-5
Q6	B-5
Q7	B-5
Q8	C-5
Q9	C-4
Q10	B-4
Q11	C-3
Q12	B-2
Q13	B-1
Q14	B-1
Q15	B-1
Q17	A-6
Q18	D-4
Q21	D-2
Q22	D-1
Q201	B-1
Q202	B-1
Q203	A-6
Q204	D-7
Q206	B-8
Q208	C-8
Q210	B-8
Q212	B-8
Q214	C-8
Q216	D-8
Q218	D-8
Q220	C-8
Q221	C-6
Q222	C-7
Q224	B-6
Q401	E-7
Q402	E-7
Q603	E-1
Q707	B-6
Q708	B-6
Q803	D-4

DIODE	
D1	E-2
D2	E-1
D7	E-6
D8	E-6
D9	D-3
D11	C-1
D13	C-2
D15	C-3
D16	C-3
D201	B-7
D801	A-2
D802	D-3

VARIABLE RESISTOR	
RV1	A-2
RV2	A-2
RV3	A-3
RV4	A-3
RV5	A-3
RV6	A-4

TEST POINT	
TP1	D-5
TP2	B-4
TP3	D-4
TP4	D-4
TP5	B-1
TP6	B-1
TP7	C-1

- □ : Pattern from the side which enables seeing.
- ▨ : Pattern of the rear side.

DB [ELECTRONIC VR]

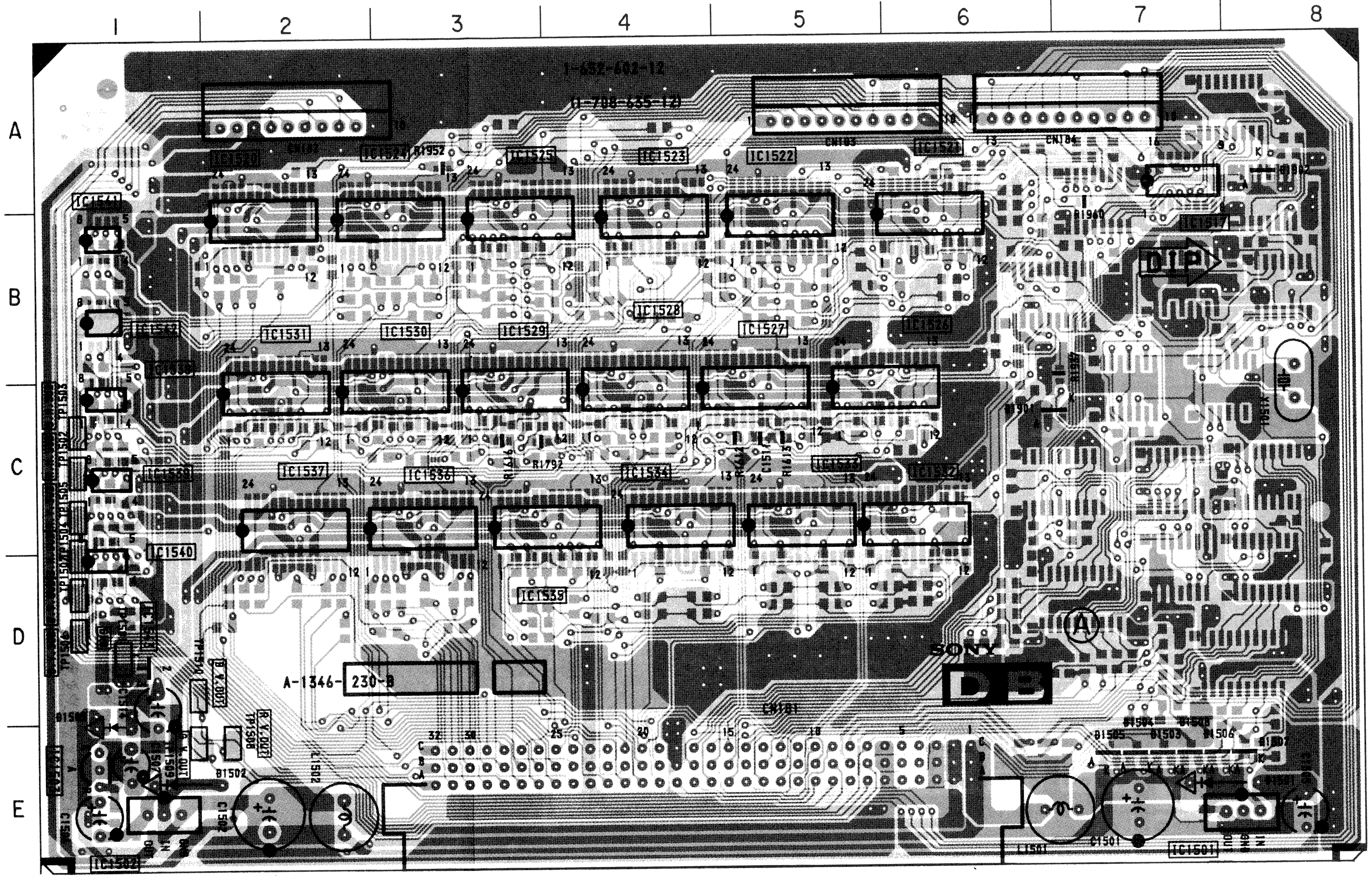
DB BOARD
(COMPONENT SIDE)

IC	
IC1501	E-8
IC1502	E-1
IC1503	E-1
IC1517	A-7
IC1520	A-2
IC1521	A-6
IC1522	A-5
IC1523	A-4
IC1524	B-3
IC1525	B-3
IC1526	B-6
IC1527	B-5
IC1528	B-4
IC1529	B-3
IC1530	B-3
IC1531	B-2
IC1532	C-6
IC1533	C-5
IC1534	C-4
IC1535	C-3
IC1536	C-3
IC1537	C-2
IC1538	C-1
IC1539	C-1
IC1540	D-1
IC1541	B-1
IC1542	B-1
IC1543	D-1
IC1545	D-3

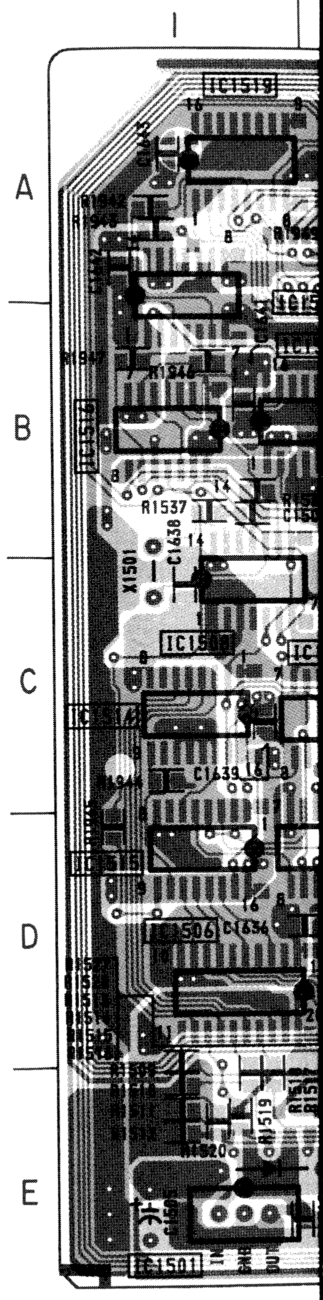
DIODE	
D1501	E-8
D1502	E-1
D1503	E-7
D1504	E-7
D1505	E-7
D1506	E-7
D1507	E-8
D1508	E-7

TEST POINT	
TP1501	D-1
TP1502	C-1
TP1503	C-1
TP1504	C-1
TP1505	C-1
TP1506	D-1
TP1507	D-1
TP1508	E-2
TP1509	E-1
TP1510	D-1

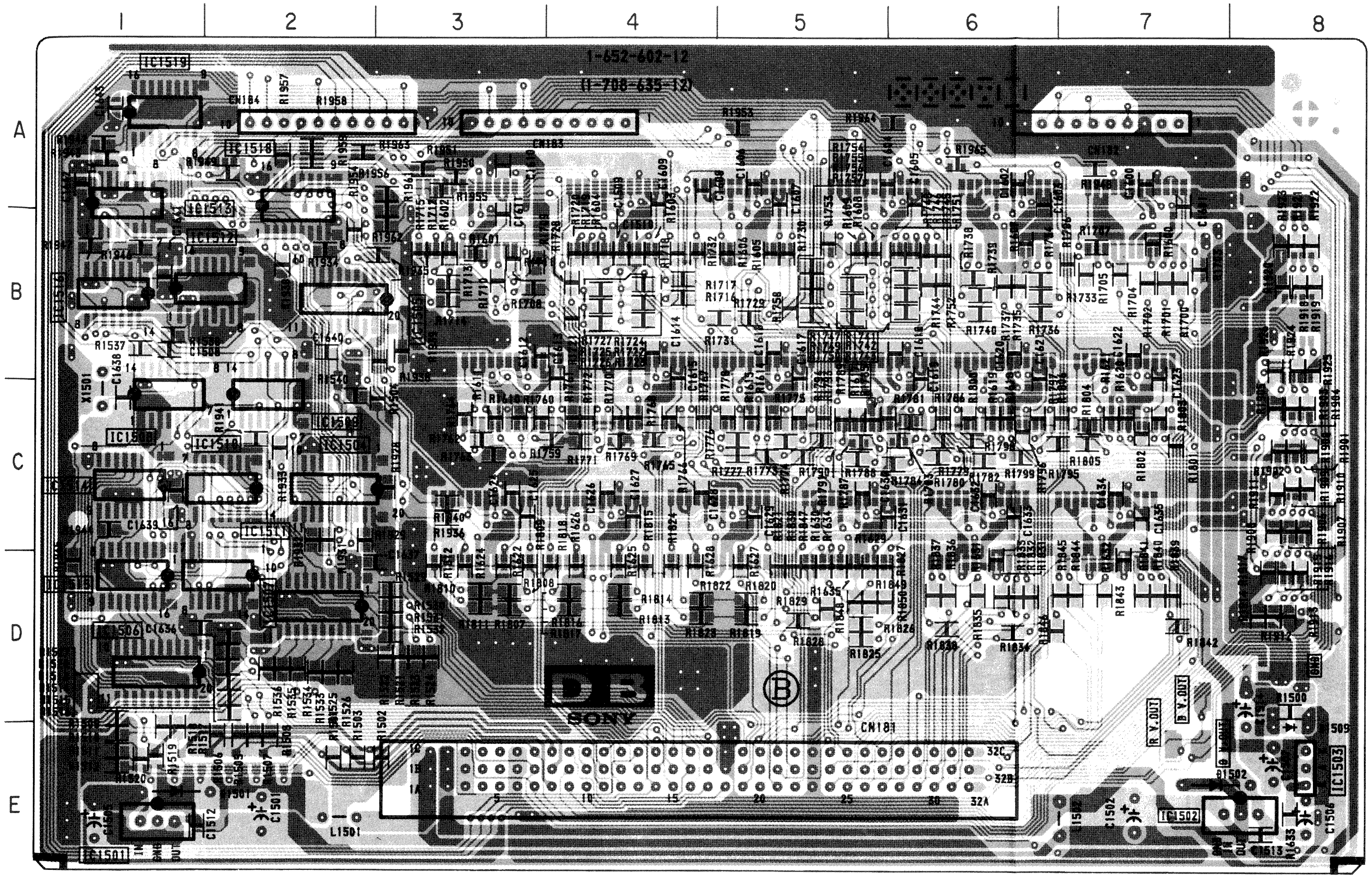
– DB BOARD – <Component Side>


1
2
3
4
5
6
7
8
A
B
C
D
E
1-652-602-12
(1-708-635-12)
IC1520
IC1524
IC1525
IC1523
IC1522
IC1521
IC1517
IC1541
IC1542
IC1531
IC1530
IC1529
IC1528
IC1527
IC1526
IC1537
IC1536
IC1535
IC1534
IC1533
IC1532
IC1538
IC1540
IC1539
IC1502
IC1501
CN103
CN104
CN101
A-1346-230-B
SONY
DB
DIP
A

<Conductor Side>


1
A
B
C
D
E
IC1519
IC1506
IC1501

<Conductor Side>

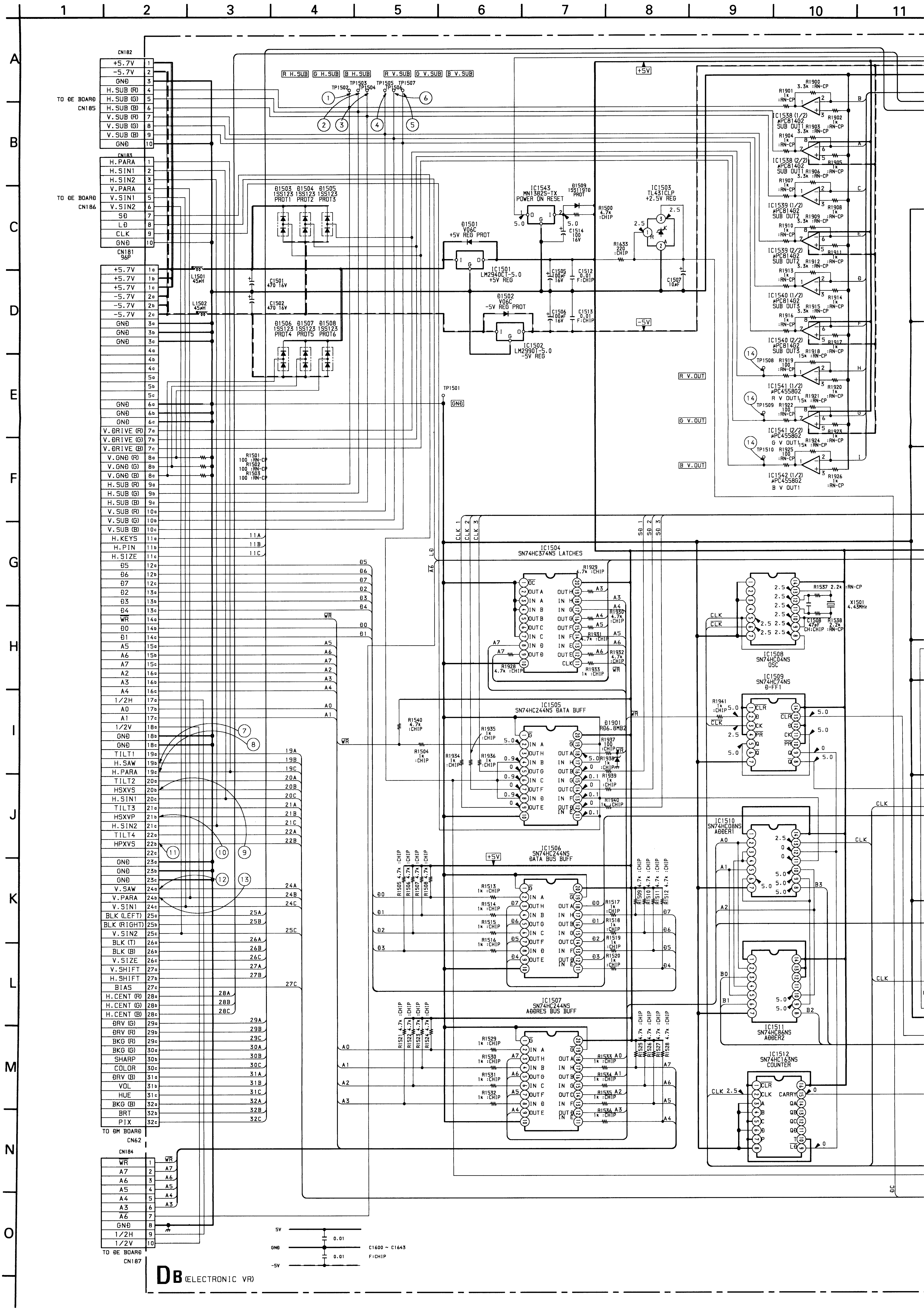

1
2
3
4
5
6
7
8
A
B
C
D
E
1-652-602-12
(1-708-635-12)
CN184
CN183
CN182
CN181
DB
SONY
R.V.OUT
B.V.OUT
IC1501
IC1502
IC1503
IC1506
IC1513
IC1518
IC1519
L1501
C1501
C1502
C1504

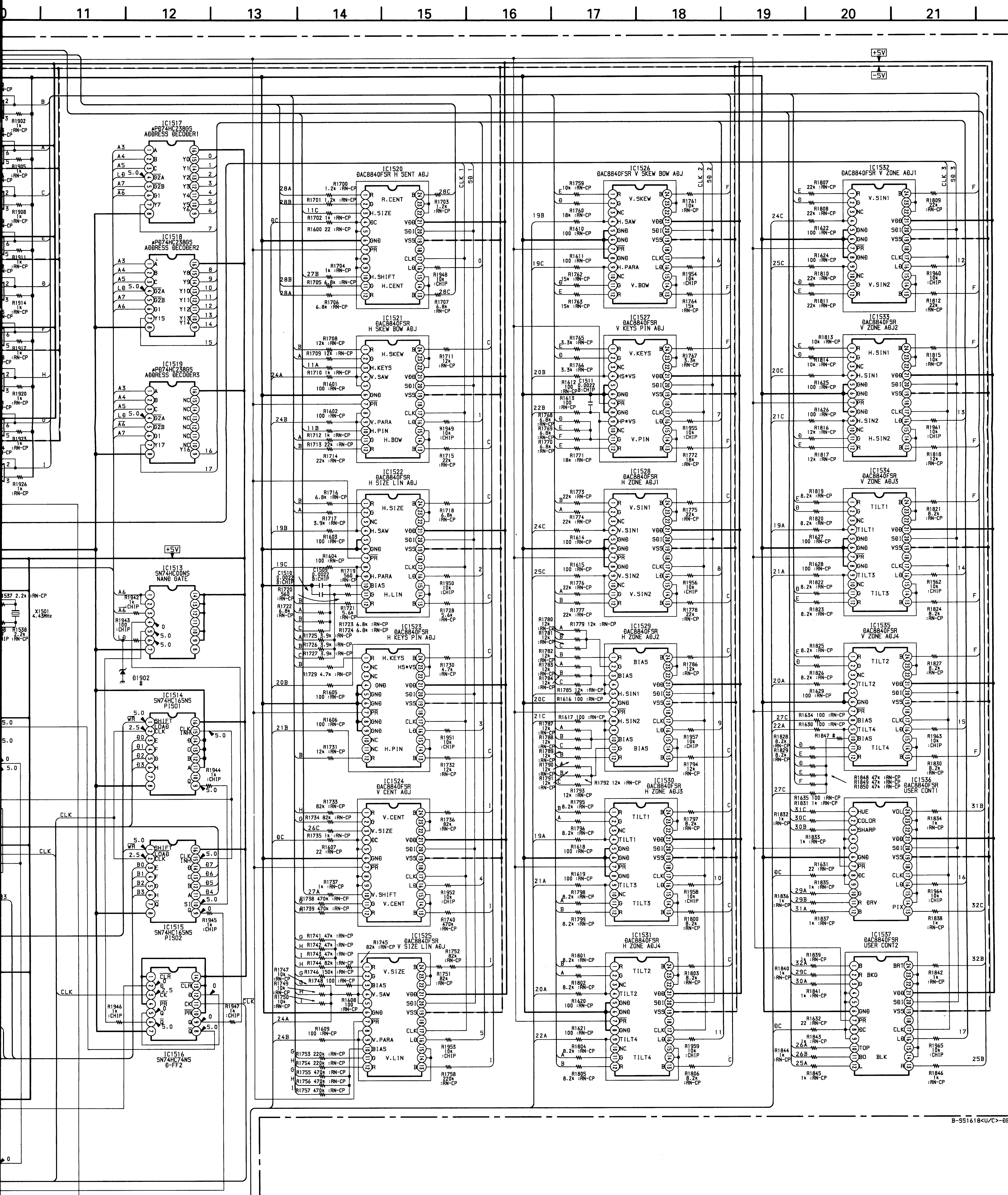
DB BOARD
(CONDUCTOR SIDE)

IC	
IC1501	E-1
IC1502	E-8
IC1503	E-8
IC1504	C-2
IC1505	B-2
IC1506	D-1
IC1507	D-2
IC1508	C-1
IC1509	C-2
IC1510	C-2
IC1511	D-2
IC1512	B-2
IC1513	A-1
IC1514	C-1
IC1515	D-1
IC1516	B-1
IC1518	A-2
IC1519	A-1

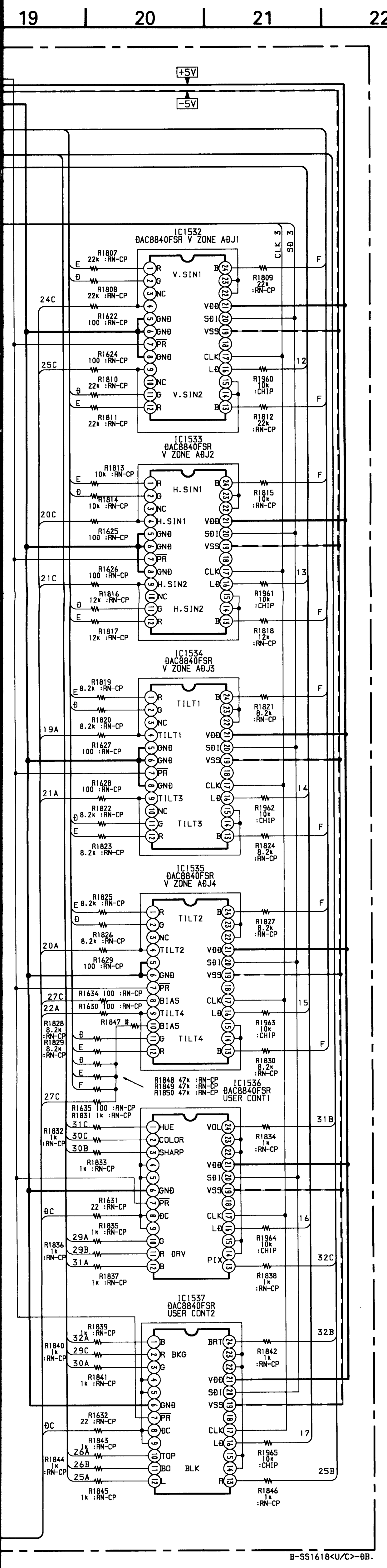
DIODE	
D1501	E-1
D1502	E-7
D1509	E-8
D1901	C-6

- ☐ : Pattern from the side which enables seeing.
- ▨ : Pattern of the rear side.

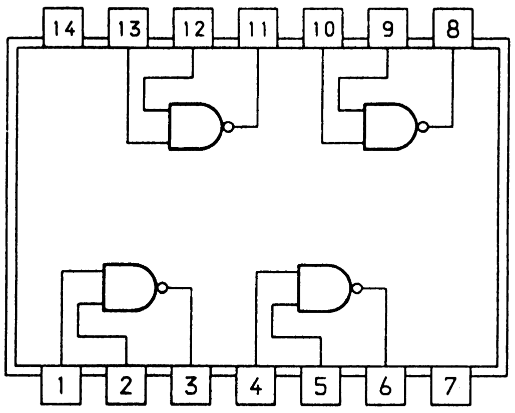

DB (ELECTRONIC VR)
CN182
TO DE BOARD CN185
CN183
TO DE BOARD CN186
CN181 96P
TO DM BOARD CN62
CN184
TO DE BOARD CN187
+5.7V
-5.7V
GND
H.SUB (R)
H.SUB (G)
H.SUB (B)
V.SUB (R)
V.SUB (G)
V.SUB (B)
H.PARA
H.SIN1
H.SIN2
V.PARA
V.SIN1
V.SIN2
SD
LD
CLK
V.DRIVE (R)
V.DRIVE (G)
V.DRIVE (B)
V.GND (R)
V.GND (G)
V.GND (B)
H.KEYS
H.PIN
H.SIZE
1/2H
1/2V
TILT1
H.SAW
TILT2
HSXVS
TILT3
HSXVP
TILT4
HPXVS
V.SAW
BLK (LEFT)
BLK (RIGHT)
BLK (T)
BLK (B)
V.SIZE
V.SHIFT
H.SHIFT
BIAS
H.CENT (R)
H.CENT (G)
H.CENT (B)
DRV (G)
DRV (R)
BKG (R)
BKG (G)
SHARP
COLOR
DRV (B)
VOL
HUE
BKG (B)
BRT
PIX
WR
L1501 45µH
L1502 45µH
C1501 470 16V
C1502 470 16V
D1503 D1504 D1505 1SS123 1SS123 1SS123 PROT1 PROT2 PROT3
D1506 D1507 D1508 1SS123 1SS123 1SS123 PROT4 PROT5 PROT6
D1501 V06C +5V REG PROT
IC1501 LM2940CT-5.0 +5V REG
D1502 V06C -5V REG PROT
IC1502 LM2990T-5.0 -5V REG
IC1543 MN1382S-TX POWER ON RESET
D1509 1SS119TD PROT
IC1503 TL431CLP +2.5V REG
R1500 4.7k :CHIP
R1633 220 :CHIP
C1514 100 16V
C1505 100µF 16V
C1512 0.01 F:CHIP
C1506 100µF 16V
C1513 0.01 F:CHIP
C1507 10µF
+5V
-5V
R H.SUB
G H.SUB
B H.SUB
R V.SUB
G V.SUB
B V.SUB
TP1502 TP1503 TP1504 TP1505 TP1506 TP1507
TP1501 GND
R1501 100 :RN-CP
R1502 100 :RN-CP
R1503 100 :RN-CP
IC1538 (1/2) µPC814G2 SUB OUT1
IC1538 (2/2) µPC814G2 SUB OUT1
IC1539 (1/2) µPC814G2 SUB OUT2
IC1539 (2/2) µPC814G2 SUB OUT2
IC1540 (1/2) µPC814G2 SUB OUT3
IC1540 (2/2) µPC814G2 SUB OUT3
IC1541 (1/2) µPC4558G2 R V OUT1
IC1541 (2/2) µPC4558G2 G V OUT1
IC1542 (1/2) µPC4558G2 B V OUT1
R V.OUT
G V.OUT
B V.OUT
TP1508 TP1509 TP1510
IC1504 SN74HC374NS LATCHES
IC1505 SN74HC244NS DATA BUFF
IC1506 SN74HC244NS DATA BUS BUFF
IC1507 SN74HC244NS ADDRES BUS BUFF
IC1508 SN74HC04NS OSC
IC1509 SN74HC74NS D-FF1
IC1510 SN74HC08NS ADDER1
IC1511 SN74HC86NS ADDER2
IC1512 SN74HC163NS COUNTER
D1901 RD6.8MB2
X1501 4.43MHz
C1508 47pF CH:CHIP
R1537 2.2k :RN-CP
R1538 2.2k :RN-CP
CLK 1 CLK 2 CLK 3
SD 1 SD 2 SD 3
C1600 ~ C1643 F:CHIP
5V
GND
-5V
0.01
1 2 3 4 5 6 7 8 9 10 11
A B C D E F G H I J K L M N O



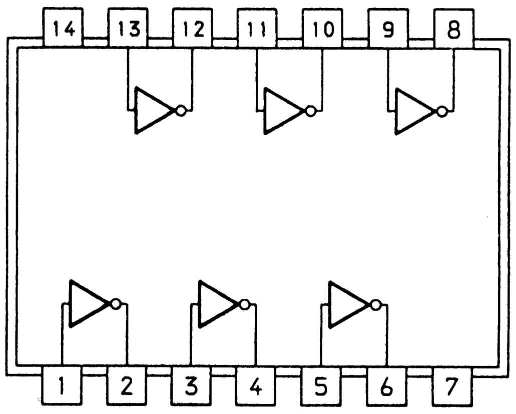
11
12
13
14
15
16
17
18
19
20
21
+5V
-5V
IC1517 μPD74HC238GS ADDRESS DECODER1
IC1518 μPD74HC238GS ADDRESS DECODER2
IC1519 μPD74HC238GS ADDRESS DECODER3
IC1513 SN74HC00NS NAND GATE
X1501 4.43MHz
D1902
IC1514 SN74HC165NS P1S01
IC1515 SN74HC165NS P1S02
IC1516 SN74HC74NS D-FF2
IC1520 DAC8840FSR H SENT ADJ
IC1521 DAC8840FSR H SKEW BOW ADJ
IC1522 DAC8840FSR H SIZE LIN ADJ
IC1523 DAC8840FSR H KEYS PIN ADJ
IC1524 DAC8840FSR V CENT ADJ
IC1525 DAC8840FSR V SIZE LIN ADJ
IC1526 DAC8840FSR V SKEW BOW ADJ
IC1527 DAC8840FSR V KEYS PIN ADJ
IC1528 DAC8840FSR H ZONE ADJ1
IC1529 DAC8840FSR H ZONE ADJ2
IC1530 DAC8840FSR H ZONE ADJ3
IC1531 DAC8840FSR H ZONE ADJ4
IC1532 DAC8840FSR V ZONE ADJ1
IC1533 DAC8840FSR V ZONE ADJ2
IC1534 DAC8840FSR V ZONE ADJ3
IC1535 DAC8840FSR V ZONE ADJ4
IC1536 DAC8840FSR USER CONT1
IC1537 DAC8840FSR USER CONT2
CLK
B-SS1618<U/C>-BI


19
20
21
22
23
24
25
26
+5V
-5V
IC1532
DAC8840FSR V ZONE ADJ1
V.SIN1
V.SIN2
IC1533
DAC8840FSR
V ZONE ADJ2
H.SIN1
H.SIN2
IC1534
DAC8840FSR
V ZONE ADJ3
TILT1
TILT3
IC1535
DAC8840FSR
V ZONE ADJ4
TILT2
TILT4
BIAS
IC1536
DAC8840FSR
USER CONT1
HUE
COLOR
SHARP
VOL
DRV
PIX
IC1537
DAC8840FSR
USER CONT2
BKG
BRT
TOP
BO
BLK
VDD
SDI
VSS
GND
PR
CLK
LD
NC
CLK 3
SD 3
24C
25C
20C
21C
19A
21A
20A
27C
22A
8C
31B
32C
32B
25B
R1807 22k :RN-CP
R1808 22k :RN-CP
R1622 100 :RN-CP
R1624 100 :RN-CP
R1810 22k :RN-CP
R1811 22k :RN-CP
R1809 22k :RN-CP
R1960 10k :CHIP
R1812 22k :RN-CP
R1813 10k :RN-CP
R1814 10k :RN-CP
R1625 100 :RN-CP
R1626 100 :RN-CP
R1816 12k :RN-CP
R1817 12k :RN-CP
R1815 10k :RN-CP
R1961 10k :CHIP
R1818 12k :RN-CP
R1819 8.2k :RN-CP
R1820 8.2k :RN-CP
R1627 100 :RN-CP
R1628 100 :RN-CP
R1822 8.2k :RN-CP
R1823 8.2k :RN-CP
R1821 8.2k :RN-CP
R1962 10k :CHIP
R1824 8.2k :RN-CP
R1825 8.2k :RN-CP
R1826 8.2k :RN-CP
R1629 100 :RN-CP
R1634 100 :RN-CP
R1630 100 :RN-CP
R1847
R1827 8.2k :RN-CP
R1963 10k :CHIP
R1830 8.2k :RN-CP
R1828 8.2k :RN-CP
R1829 8.2k :RN-CP
R1848 47k :RN-CP
R1849 47k :RN-CP
R1850 47k :RN-CP
R1635 100 :RN-CP
R1831 1k :RN-CP
R1832 1k :RN-CP
R1833 1k :RN-CP
R1631 22 :RN-CP
R1835 1k :RN-CP
R1836 1k :RN-CP
R1837 1k :RN-CP
R1834 1k :RN-CP
R1964 10k :CHIP
R1838 1k :RN-CP
R1839 1k :RN-CP
R1840 1k :RN-CP
R1841 1k :RN-CP
R1632 22 :RN-CP
R1843 1k :RN-CP
R1844 1k :RN-CP
R1845 1k :RN-CP
R1842 1k :RN-CP
R1965 10k :CHIP
R1846 1k :RN-CP
B-SS1618<U/C>-DB.

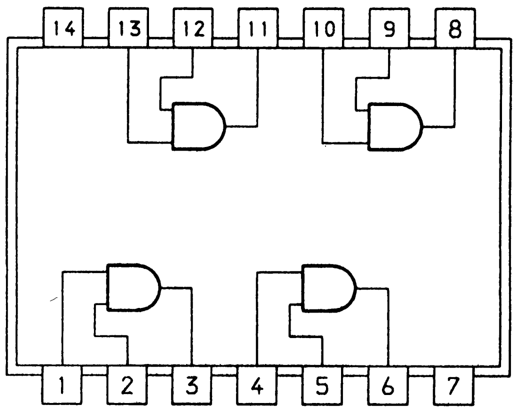
DB BOARD IC513 SN74HC00NS


14
13
12
11
10
9
8
1
2
3
4
5
6
7

DB BOARD IC508 SN74HC04NS


14
13
12
11
10
9
8
1
2
3
4
5
6
7

DB BOARD IC510 SN74HC08NS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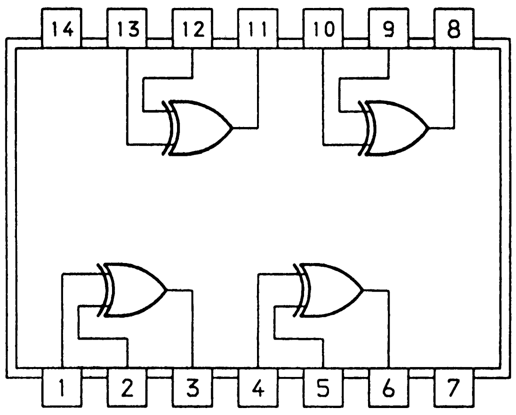
DB BOARD IC511 SN74HC86NS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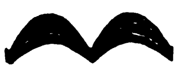
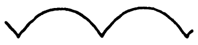
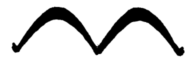
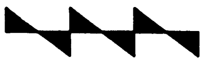
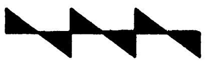
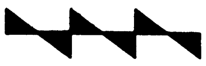
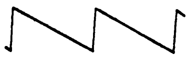
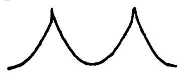
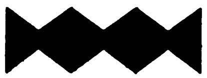
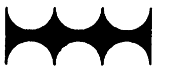
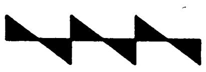
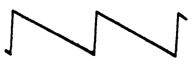
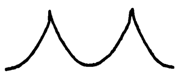
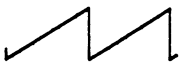
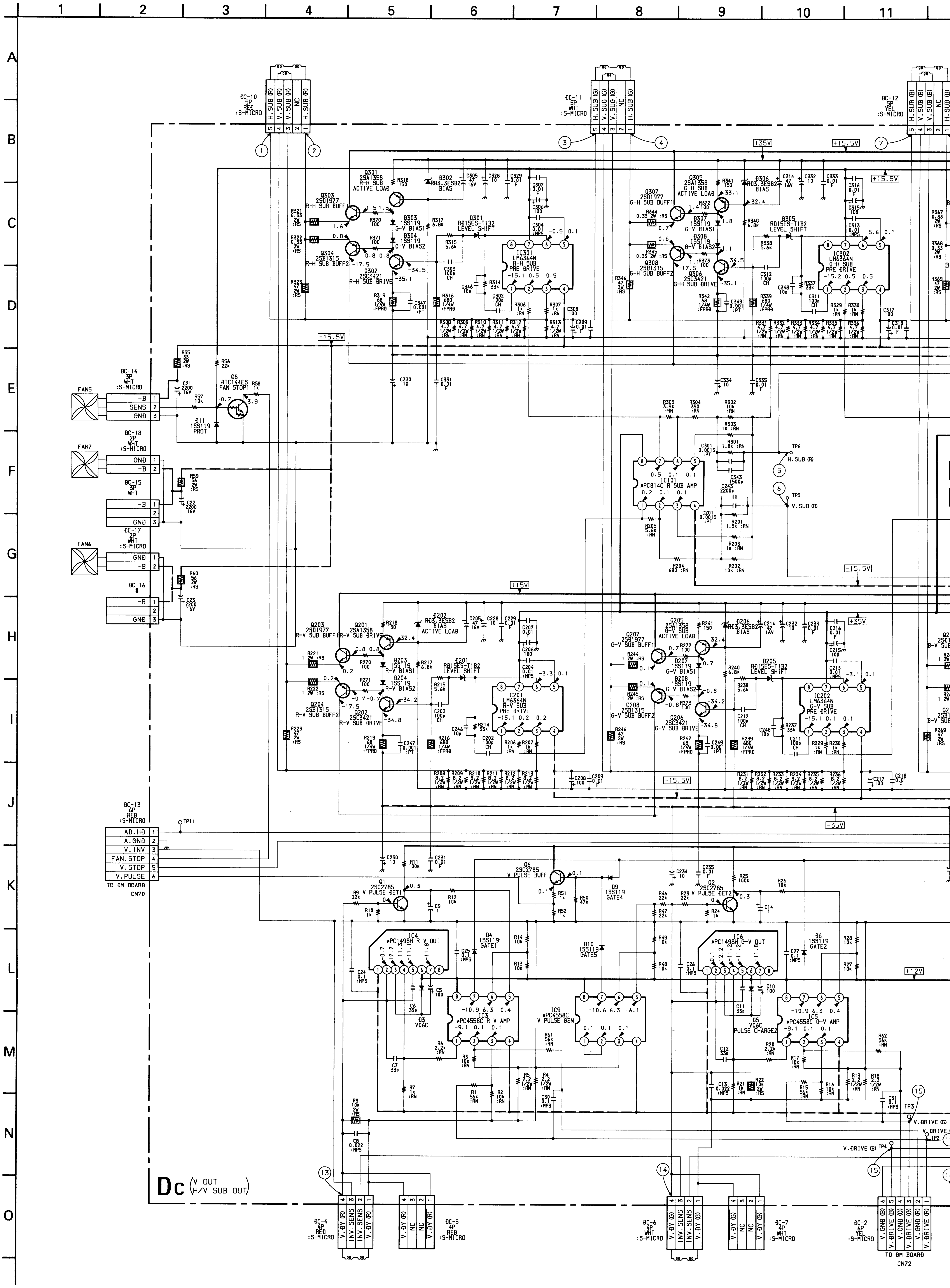
DB BOARD

①  0.18 Vp-p (H)	②  0.5 Vp-p (H)	③  1.0 Vp-p (H)
④  1.3 Vp-p (V)	⑤  0.8 Vp-p (V)	⑥  1.2 Vp-p (V)
⑦  2.4 Vp-p (H)	⑧  2.6 Vp-p (H)	⑨  2.6 Vp-p (V)
⑩  4.3 Vp-p (V)	⑪  4.7 Vp-p (V)	⑫  2.7 Vp-p (V)
⑬  Vp-p (V)	⑭  4.7 Vp-p (V)	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J
K
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M
N
O
Dc (V OUT H/V SUB OUT)
DC-10 5P RED :S-MICRO
H.SUB (R)
V.SUB (R)
V.SUB (R)
NC
H.SUB (R)
DC-11 5P WHT :S-MICRO
H.SUB (G)
V.SUB (G)
V.SUB (G)
NC
H.SUB (G)
DC-12 5P YEL :S-MICRO
H.SUB (B)
V.SUB (B)
V.SUB (B)
NC
H.SUB (B)
+35V
+15.5V
-15.5V
+15V
-35V
+12V
Q301 2SA1358 R-H SUB ACTIVE LOAD
Q303 2SD1977 R-H SUB BUFF1
Q304 2SB1315 R-H SUB BUFF2
Q302 2SC3421 R-H SUB DRIVE
D302 RD3.3ESB2 BIAS
D303 1SS119 G-V BIAS1
D304 1SS119 G-V BIAS2
D301 RD15ES-T1B2 LEVEL SHIFT
IC301 LM6364N R-H SUB PRE DRIVE
Q305 2SA1358 G-H SUB ACTIVE LOAD
Q307 2SD1977 G-H SUB BUFF1
Q308 2SB1315 G-H SUB BUFF2
Q306 2SC3421 G-H SUB DRIVE
D306 RD3.3ESB2 BIAS
D307 1SS119 G-V BIAS1
D308 1SS119 G-V BIAS2
D305 RD15ES-T1B2 LEVEL SHIFT
IC302 LM6364N G-H SUB PRE DRIVE
DC-14 3P WHT :S-MICRO
FAN5
-B
SENS
GND
Q8 DTC144ES FAN STOP1
D11 1SS119 PROT
DC-18 2P WHT :S-MICRO
FAN7
DC-15 3P WHT
DC-17 2P WHT :S-MICRO
FAN6
DC-16
IC101 μPC814C R SUB AMP
TP6 H.SUB (R)
TP5 V.SUB (R)
Q203 2SD1977 R-V SUB BUFF1
Q201 2SA1358 R-V SUB DRIVE
Q204 2SB1315 R-V SUB BUFF2
Q202 2SC3421 R-V SUB DRIVE
D202 RD3.3ESB2 BIAS ACTIVE LOAD
D203 1SS119 R-V BIAS1
D204 1SS119 R-V BIAS2
D201 RD15ES-T1B2 LEVEL SHIFT
IC201 LM6364N R-V SUB PRE DRIVE
Q207 2SD1977 G-V SUB BUFF1
Q205 2SA1358 G-V SUB ACTIVE LOAD
Q208 2SB1315 G-V SUB BUFF2
Q206 2SC3421 G-V SUB DRIVE
D206 RD3.3ESB2 BIAS
D207 1SS119 G-V BIAS1
D208 1SS119 G-V BIAS2
D205 RD15ES-T1B2 LEVEL SHIFT
IC202 LM6364N G-V SUB PRE DRIVE
DC-13 6P RED :S-MICRO
AD.HD
A.GND
V.INV
FAN.STOP
V.STOP
V.PULSE
TO DM BOARD CN70
TP11
Q6 2SC2785 V PULSE BUFF
Q1 2SC2785 V PULSE DET1
Q2 2SC2785 V PULSE DET2
D9 1SS119 GATE4
D4 1SS119 GATE1
D10 1SS119 GATE5
D6 1SS119 GATE2
IC4 μPC1498H R V OUT
IC6 μPC1498H G-V OUT
IC3 μPC4558C R V AMP
IC9 μPC4558C V PULSE GEN
IC5 μPC4558C G-V AMP
D3 V06C
D5 V06C PULSE CHARGE2
TP3
V.DRIVE (G)
V.DRIVE (R) TP2
V.DRIVE (B) TP4
DC-4 4P RED :S-MICRO
V.DY (R)
INV.SENS
INV.SENS
V.DY (R)
DC-5 4P RED :S-MICRO
V.DY (R)
NC
NC
V.DY (R)
DC-6 4P WHT :S-MICRO
V.DY (G)
INV.SENS
INV.SENS
V.DY (G)
DC-7 4P WHT :S-MICRO
V.DY (G)
NC
NC
V.DY (G)
DC-2 6P YEL :S-MICRO
V.GND (B)
V.DRIVE (B)
V.GND (G)
V.DRIVE (G)
V.GND (R)
V.DRIVE (R)
TO DM BOARD CN72
①
②
③
④
⑤
⑥
⑦
⑬
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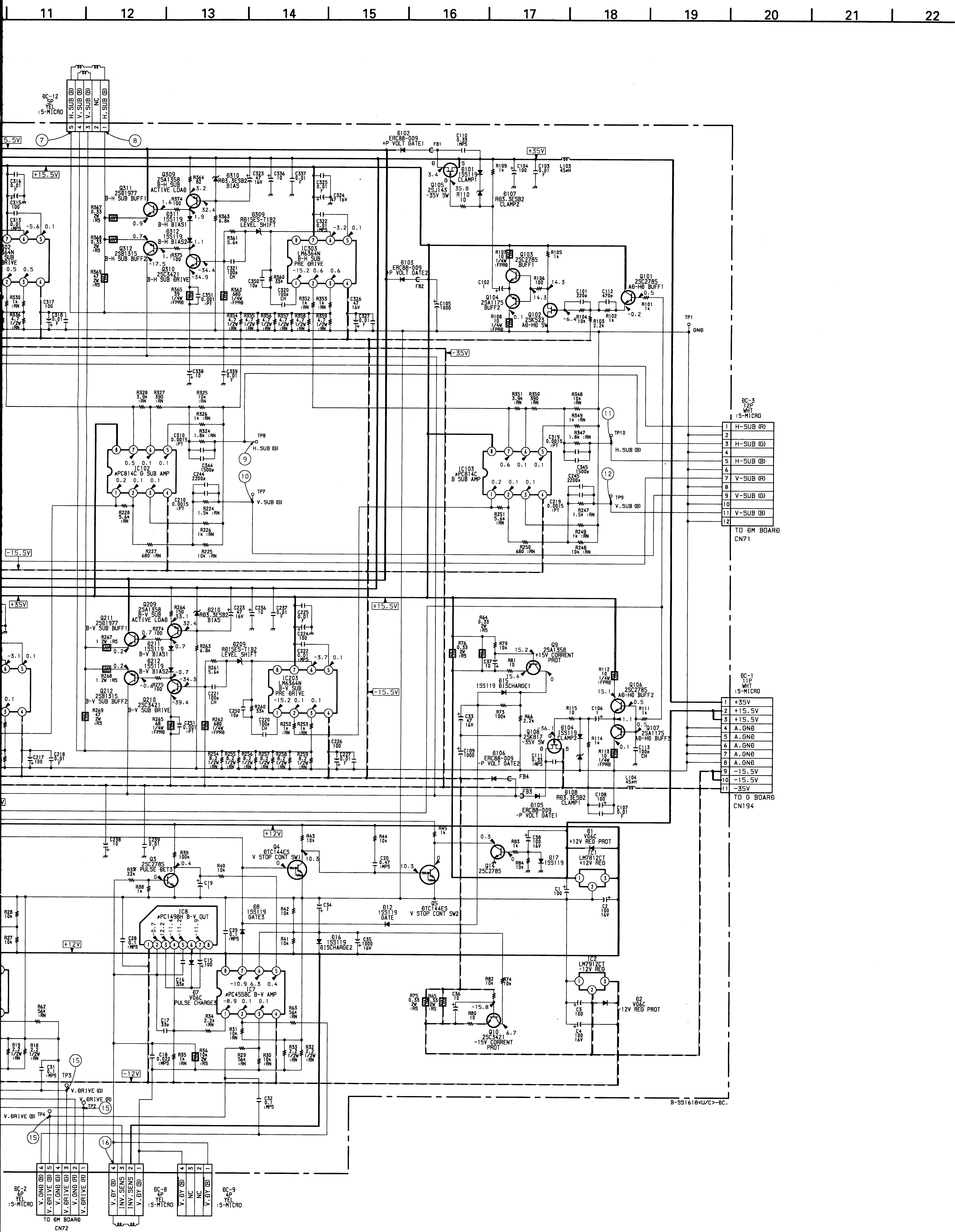
⑮

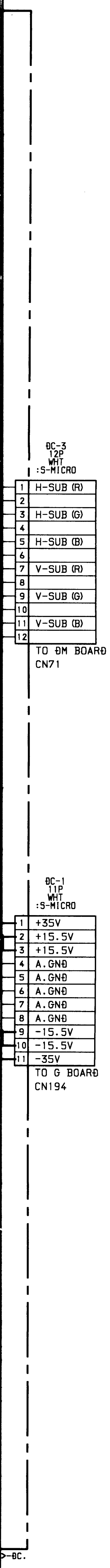
Schematic diagram

← DB board

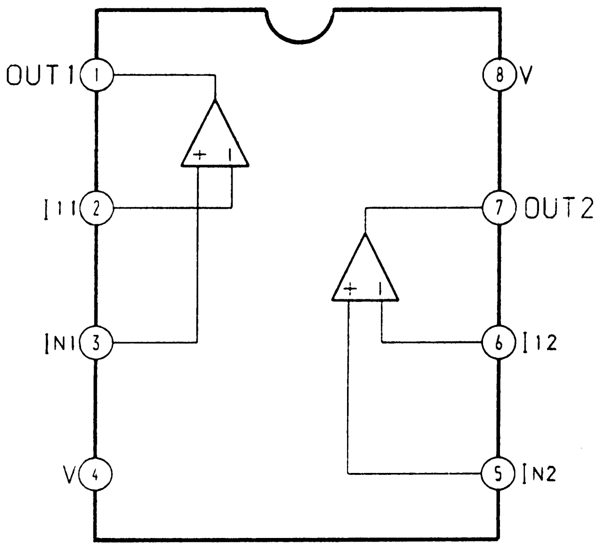
Schematic diagram

DC board →


11
12
13
14
15
16
17
18
19
20
21
22
ØC-12 5P YEL :S-MICRO
H.SUB (B)
V.SUB (B)
V.SUB (B)
NC
H.SUB (B)
Q311 2SD1977 B-H SUB BUFF1
Q312 2SB1315 B-H SUB BUFF2
Q309 2SA1358 B-H SUB ACTIVE LOAD
Q310 2SC3421 B-H SUB DRIVE
D311 1SS119 B-H BIAS1
D312 1SS119 B-H BIAS2
D310 RD3.3ESB2 BIAS
D309 RD15ES-T1B2 LEVEL SHIFT
IC303 LM6364N B-H SUB PRE DRIVE
D102 ERC88-009 +P VOLT GATE1
D103 ERC88-009 +P VOLT GATE2
Q105 2SJ143 -35V SW
D101 1SS119 CLAMP1
D107 RD3.3ESB2 CLAMP2
Q103 2SC2785 BUFF1
Q104 2SA1175 BUFF2
Q102 2SK523 AD-HD SW
Q101 2SC2785 AD-HD BUFF1
TP1 GND
+35V
+15.5V
-35V
-15.5V
+12V
-12V
IC102 μPC814C G SUB AMP
IC103 μPC814C B SUB AMP
TP8 H.SUB (G)
TP7 V.SUB (G)
TP10 H.SUB (B)
TP9 V.SUB (B)
ØC-3 12P WHT :S-MICRO
1 H-SUB (R)
2
3 H-SUB (G)
4
5 H-SUB (B)
6
7 V-SUB (R)
8
9 V-SUB (G)
10
11 V-SUB (B)
12
TO DM BOARD CN71
Q211 2SD1977 B-V SUB BUFF1
Q212 2SB1315 B-V SUB BUFF2
Q209 2SA1358 B-V SUB ACTIVE LOAD
Q210 2SC3421 B-V SUB DRIVE
D211 1SS119 B-V BIAS1
D212 1SS119 B-V BIAS2
D210 RD3.3ESB2 BIAS
D209 RD15ES-T1B2 LEVEL SHIFT
IC203 LM6364N B-V SUB PRE DRIVE
Q9 2SA1358 +15V CURRENT PROT
D15 1SS119 DISCHARGE1
Q106 2SC2785 AD-HD BUFF2
Q107 2SA1175 AD-HD BUFF3
Q108 2SK817 -35V SW
D104 1SS119 CLAMP2
D106 ERC88-009 -P VOLT GATE2
D105 ERC88-009 -P VOLT GATE1
D108 RD3.3ESB2 CLAMP1
ØC-1 11P WHT :S-MICRO
1 +35V
2 +15.5V
3 +15.5V
4 A.GND
5 A.GND
6 A.GND
7 A.GND
8 A.GND
9 -15.5V
10 -15.5V
11 -35V
TO G BOARD CN194
Q3 2SC2785 PULSE DET3
Q4 DTC144ES V STOP CONT SW1
Q5 DTC144ES V STOP CONT SW2
Q17 2SC2785
D17 1SS119
D1 V06C +12V REG PROT
IC1 LM7812CT +12V REG
IC2 LM7912CT -12V REG
D2 V06C -12V REG PROT
IC8 μPC1498H B-V OUT
IC7 μPC4558C B-V AMP
D7 V06C PULSE CHARGE3
D8 1SS119 GATE3
D12 1SS119 GATE
D16 1SS119 DISCHARGE2
Q10 2SC3421 -15V CURRENT PROT
TP3 V.DRIVE (G)
TP2 V.DRIVE (R)
TP4 V.DRIVE (B)
ØC-2 6P YEL :S-MICRO
V.GND (B)
V.DRIVE (B)
V.DRIVE (G)
V.GND (G)
V.GND (R)
V.DRIVE (R)
TO DM BOARD CN72
ØC-8 4P YEL :S-MICRO
V.DY (B)
INV.SENS
INV.SENS
V.DY (B)
ØC-9 4P YEL :S-MICRO
V.DY (B)
NC
NC
V.DY (B)
B-SS1618<U/C>-ØC.


DC-3
12P
WHT
:S-MICRO
1 H-SUB (R)
2
3 H-SUB (G)
4
5 H-SUB (B)
6
7 V-SUB (R)
8
9 V-SUB (G)
10
11 V-SUB (B)
12
TO DM BOARD
CN71
DC-1
11P
WHT
:S-MICRO
1 +35V
2 +15.5V
3 +15.5V
4 A.GND
5 A.GND
6 A.GND
7 A.GND
8 A.GND
9 -15.5V
10 -15.5V
11 -35V
TO G BOARD
CN194
-DC.

DC BOARD IC3, 5, 7, 9 μPC4558C


OUT1 1
II1 2
IN1 3
V 4
8 V
7 OUT2
6 II2
5 IN2
+
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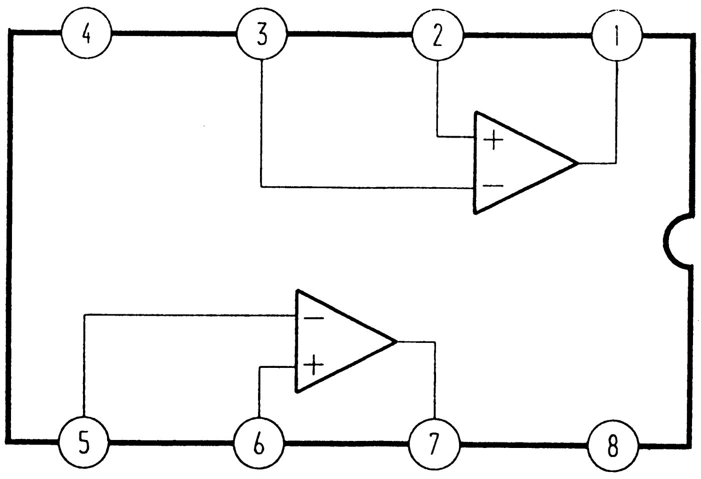
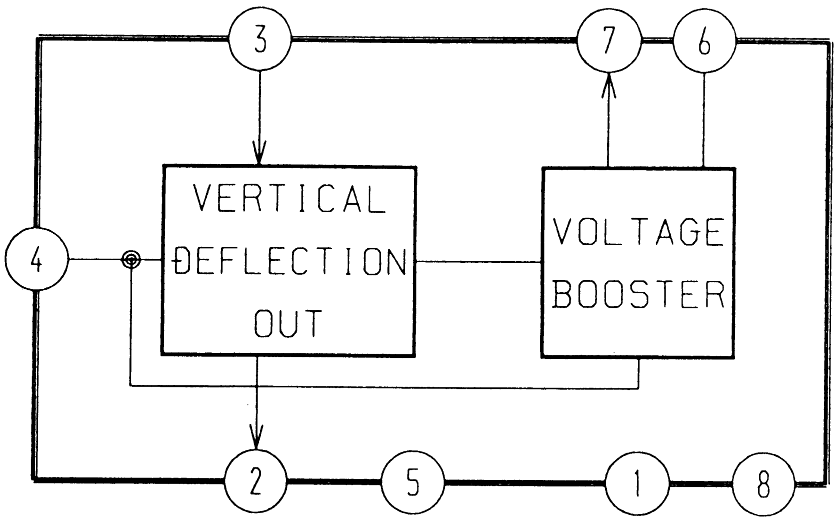
DC BOARD IC101, 102, 103 μPC814C



DC BOARD IC4, 6, 8 μPC1498H


3
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VERTICAL DEFLECTION OUT
VOLTAGE BOOSTER
2
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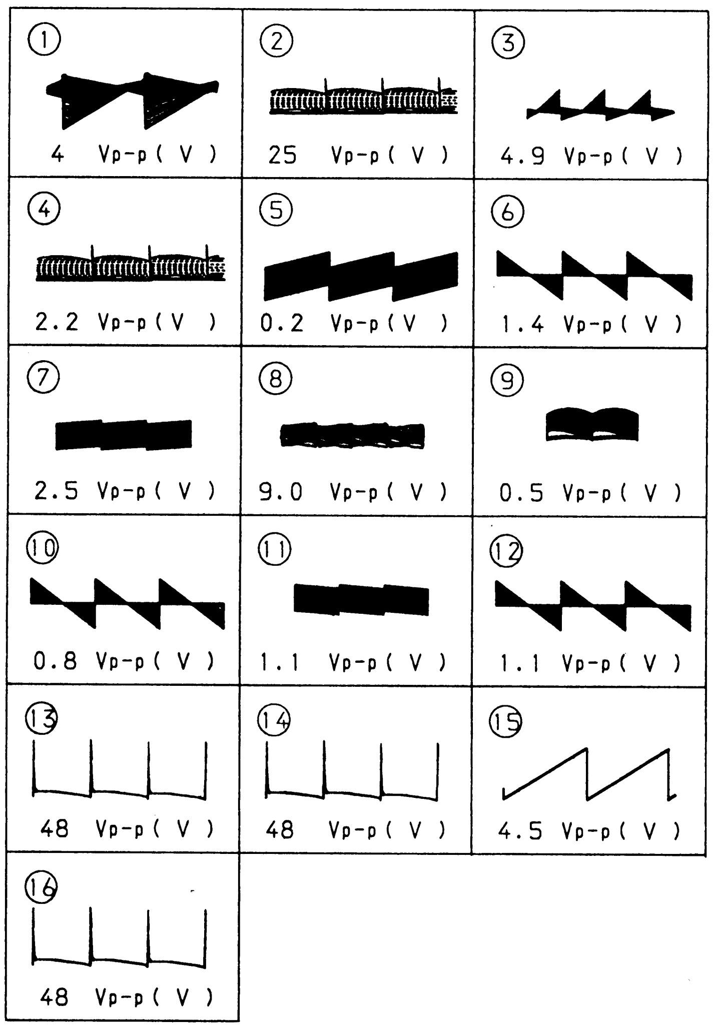
8

DC BOARD



DC [V.OUT H/V SUB OUT]

DC BOARD

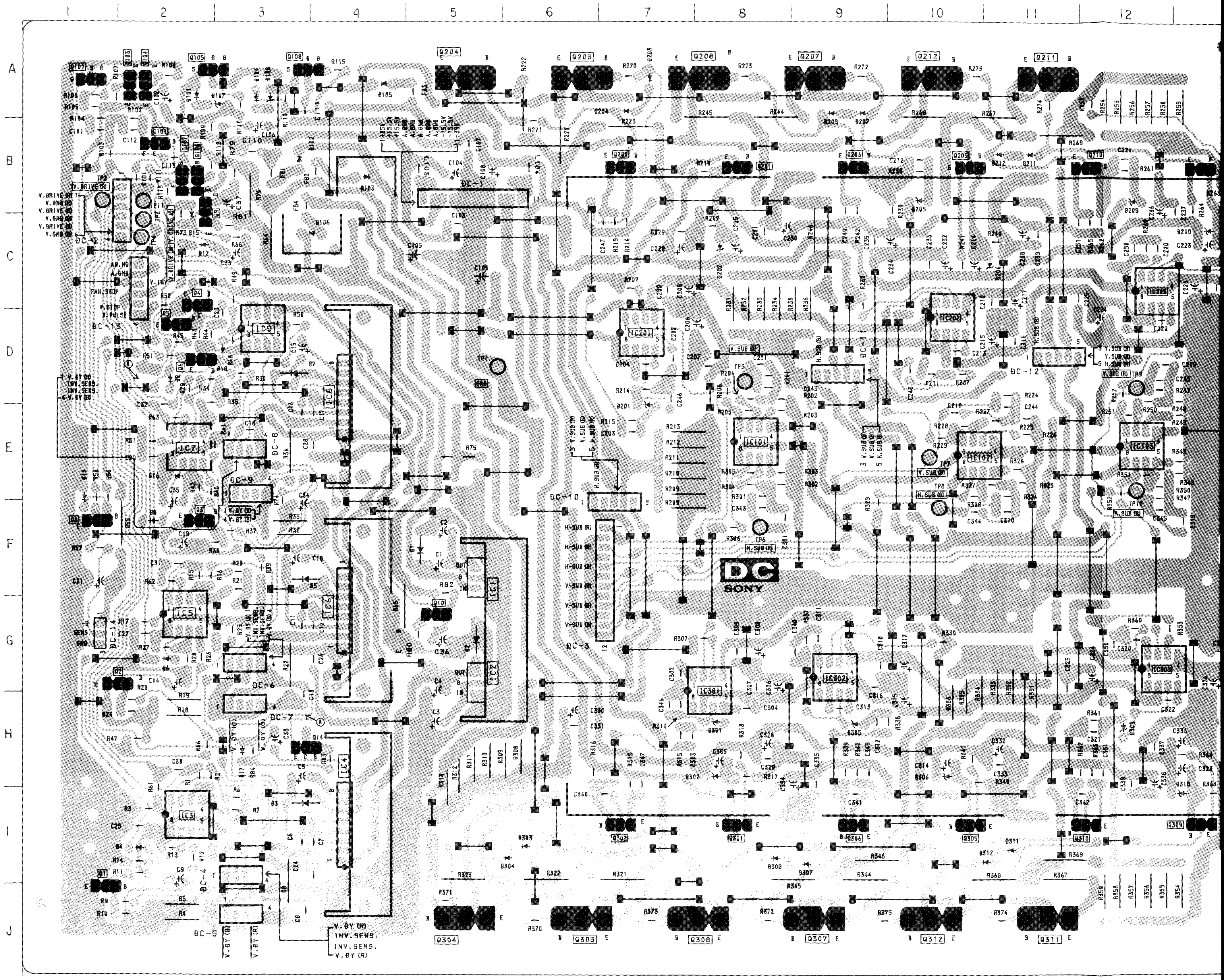
IC	
IC1	F-5
IC2	G-5
IC3	I-2
IC4	H-4
IC5	G-2
IC6	G-4
IC7	E-2
IC8	D-4
IC9	D-3
IC101	E-8
IC102	E-10
IC103	E-12
IC201	D-7
IC202	D-10
IC203	C-12
IC301	G-8
IC302	G-9
IC303	G-12

TRANSISTOR	
Q1	I-1
Q2	G-2
Q3	F-2
Q4	C-2
Q5	D-2
Q6	D-2
Q8	F-1
Q9	B-2
Q10	G-5
Q14	H-4
Q101	B-2
Q102	A-1
Q103	A-2
Q104	A-2
Q105	A-2
Q106	B-2
Q107	B-2
Q108	A-3
Q201	B-8
Q202	B-7
Q203	A-6
Q204	A-5
Q205	B-10
Q206	B-9
Q207	A-9
Q208	A-8
Q209	B-13
Q210	B-12
Q211	A-11
Q212	A-10
Q301	I-8
Q302	I-7
Q303	J-6
Q304	J-5
Q305	I-10
Q306	I-9
Q307	J-9
Q308	J-8
Q309	I-13
Q310	I-12
Q311	J-11
Q312	J-10

DIODE	
D1	F-5
D2	G-5
D3	I-3
D4	I-2
D5	F-3
D6	G-2
D7	D-3
D8	F-2
D9	D-2
D10	D-3
D11	E-1
D12	C-2
D15	C-2
D16	E-2
D17	H-3
D101	A-2
D102	B-3
D103	B-4
D104	A-3
D105	A-4
D106	C-4
D107	A-3
D108	A-3
D201	D-7
D202	C-8
D203	A-7
D204	A-7
D205	B-10
D206	C-11
D207	A-9
D208	A-9
D209	B-12
D210	C-13
D211	B-11
D212	B-11
D301	H-8
D302	H-8
D303	I-6
D304	I-6
D305	H-9
D306	H-10
D307	I-9
D308	I-8
D309	H-12
D310	H-13
D311	I-11
D312	I-11

TEST POINT	
TP1	D-5
TP2	B-1
TP3	C-2
TP4	C-2
TP5	D-8
TP6	F-8
TP7	E-10
TP8	E-10
TP9	D-12
TP10	E-12
TP11	B-2

– DC BOARD –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G
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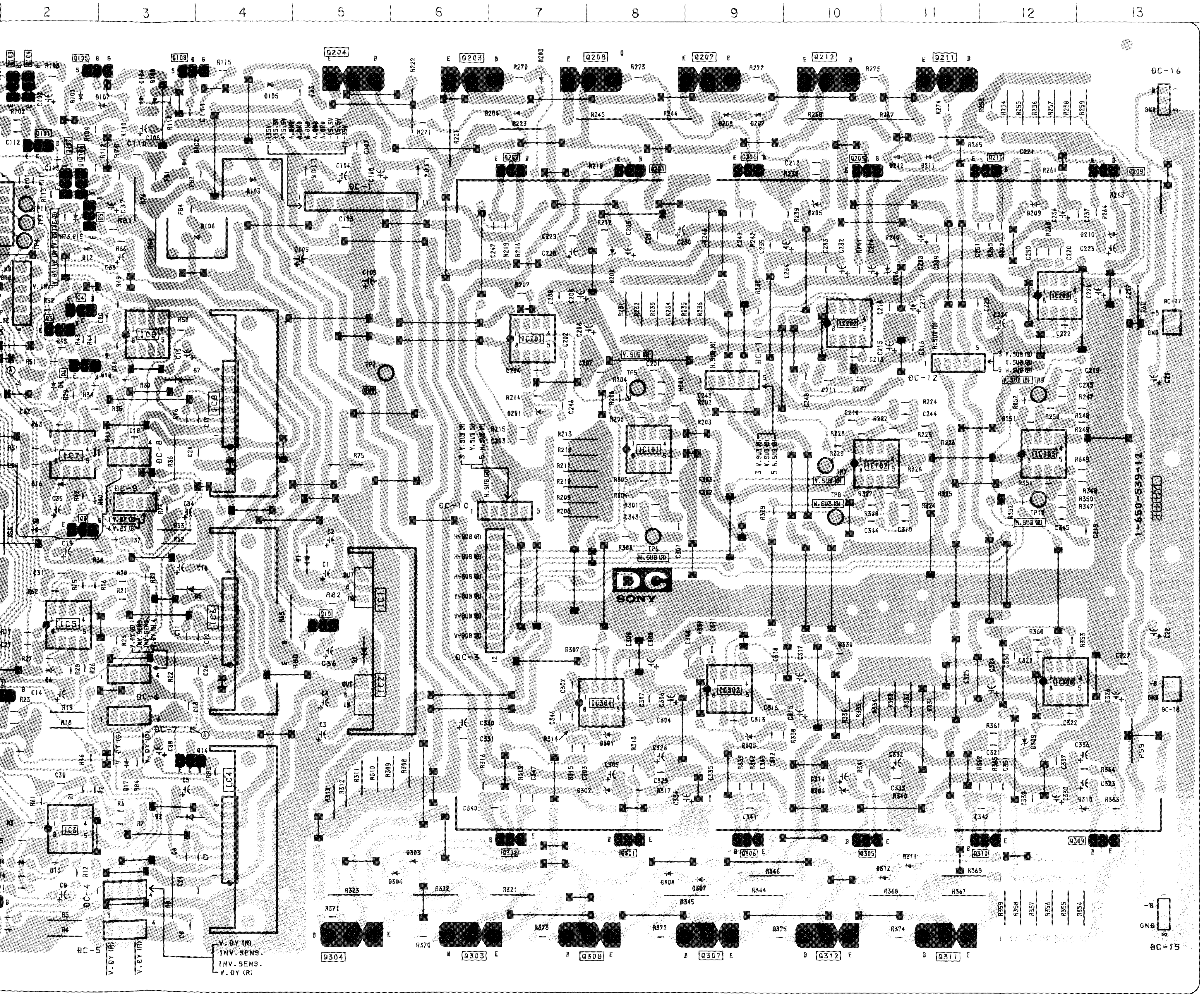
I
J
DC
SONY
IC1
IC2
IC3
IC4
IC5
IC6
IC7
IC8
IC9
IC101
IC102
IC103
IC201
IC202
IC203
IC301
IC302
IC303
TP1
TP5
TP6
TP7
TP8
TP10
ØC-1
ØC-3
ØC-4
ØC-5
ØC-6
ØC-7
ØC-8
ØC-9
ØC-10
ØC-11
ØC-12
ØC-13
ØC-14
V.BRIVE
V.GND
V.STOP
V.PULSE
FAN.STOP
INV.SENS.
V.BY
V.SUB
H.SUB
Q304
Q303
Q308
Q307
Q312
Q311
Q204
Q203
Q208
Q207
Q212
Q211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13
Q204
Q203
Q208
Q207
Q212
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IC201
IC202
IC203
IC101
IC102
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IC301
IC302
IC303
IC1
IC2
IC3
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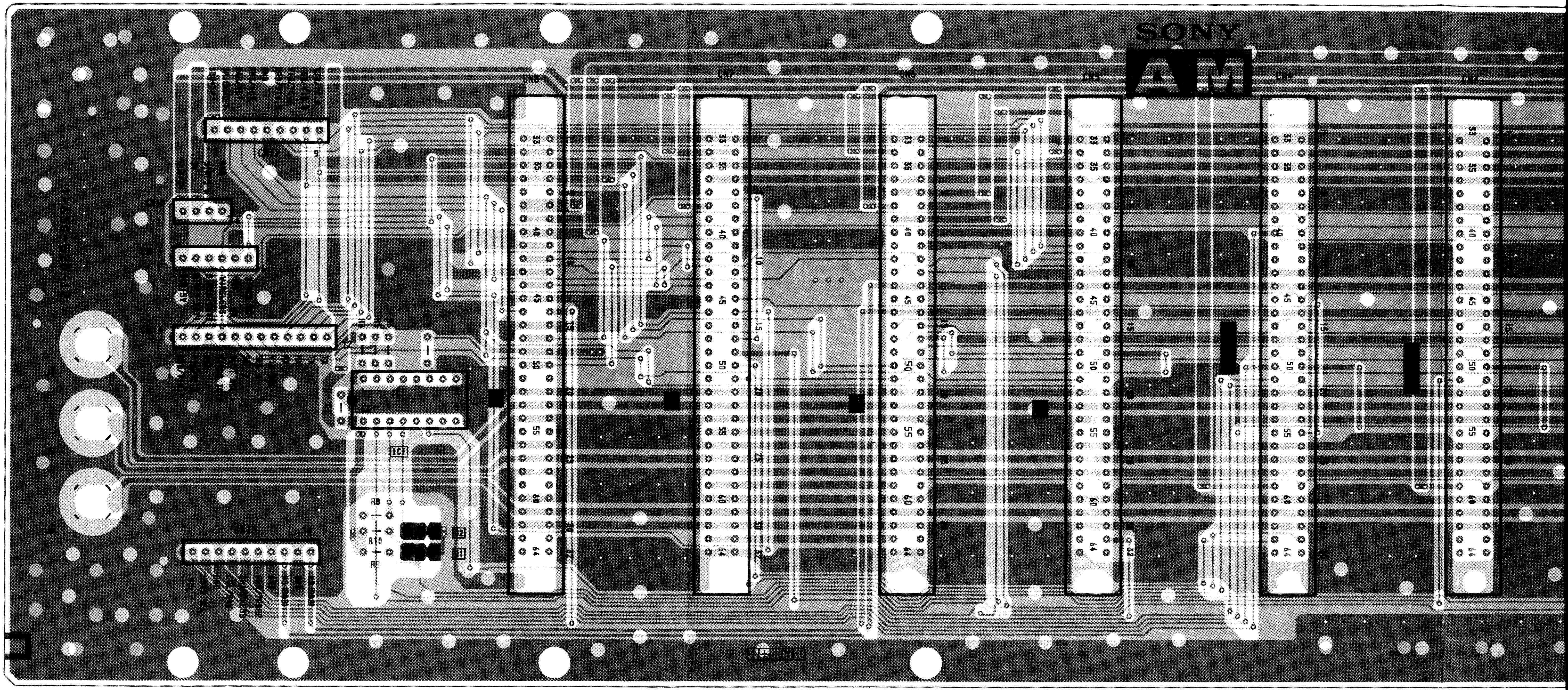
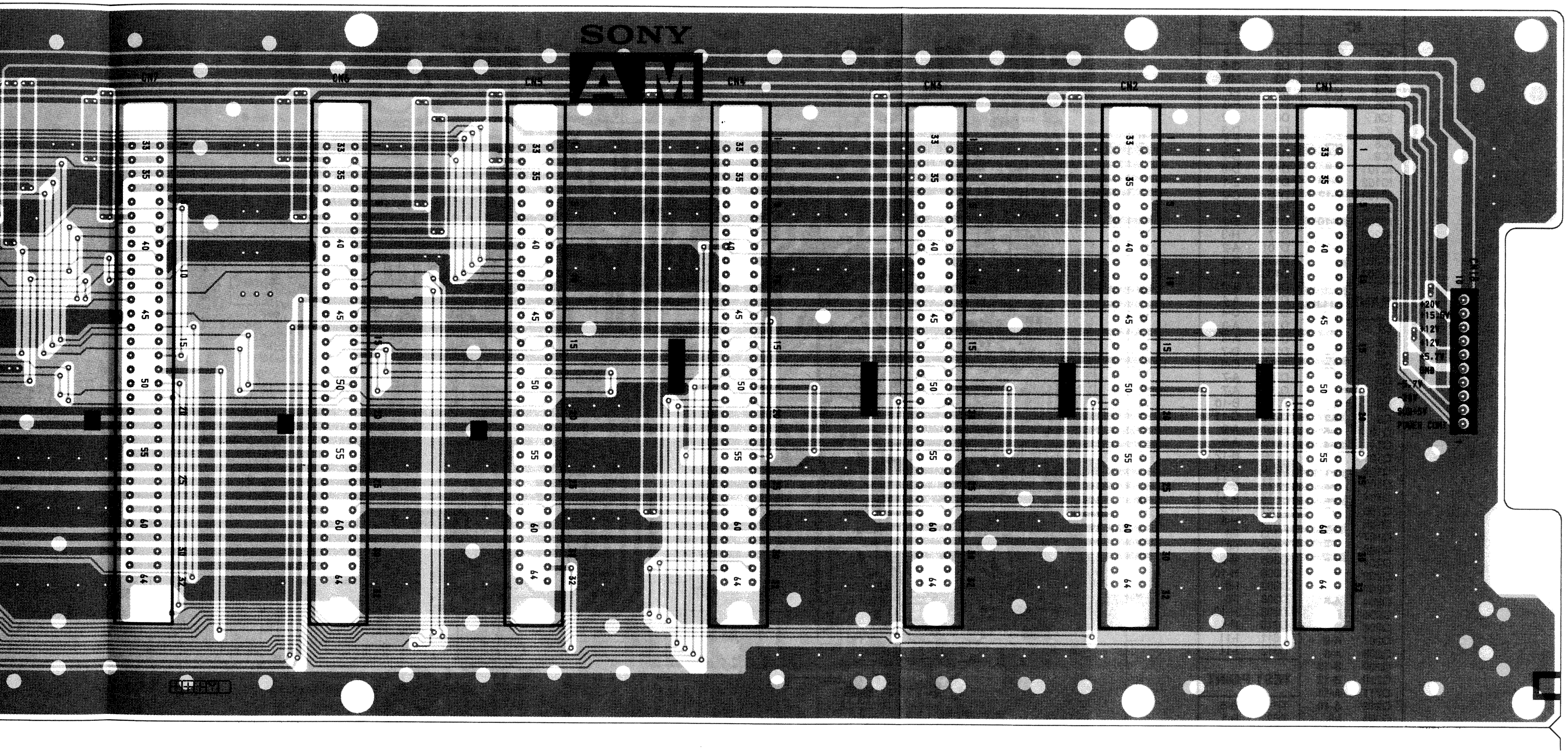
IC5
IC6
IC7
IC8
IC9
CN-1
CN-3
CN-10
CN-11
CN-12
CN-15
CN-16
CN-17
CN-18
DC
SONY
1-650-539-12
Q302
Q301
Q306
Q305
Q310
Q309
Q304
Q303
Q308
Q307
Q312
Q311
V.BY (R)
INV. SENS.
INV. SENS.
V.BY (R)
H-SUB (R)
H-SUB (G)
H-SUB (B)
V-SUB (R)
V-SUB (G)
V-SUB (B)
TP1
TP4
TP5
TP6
TP7
TP8
TP9
TP10

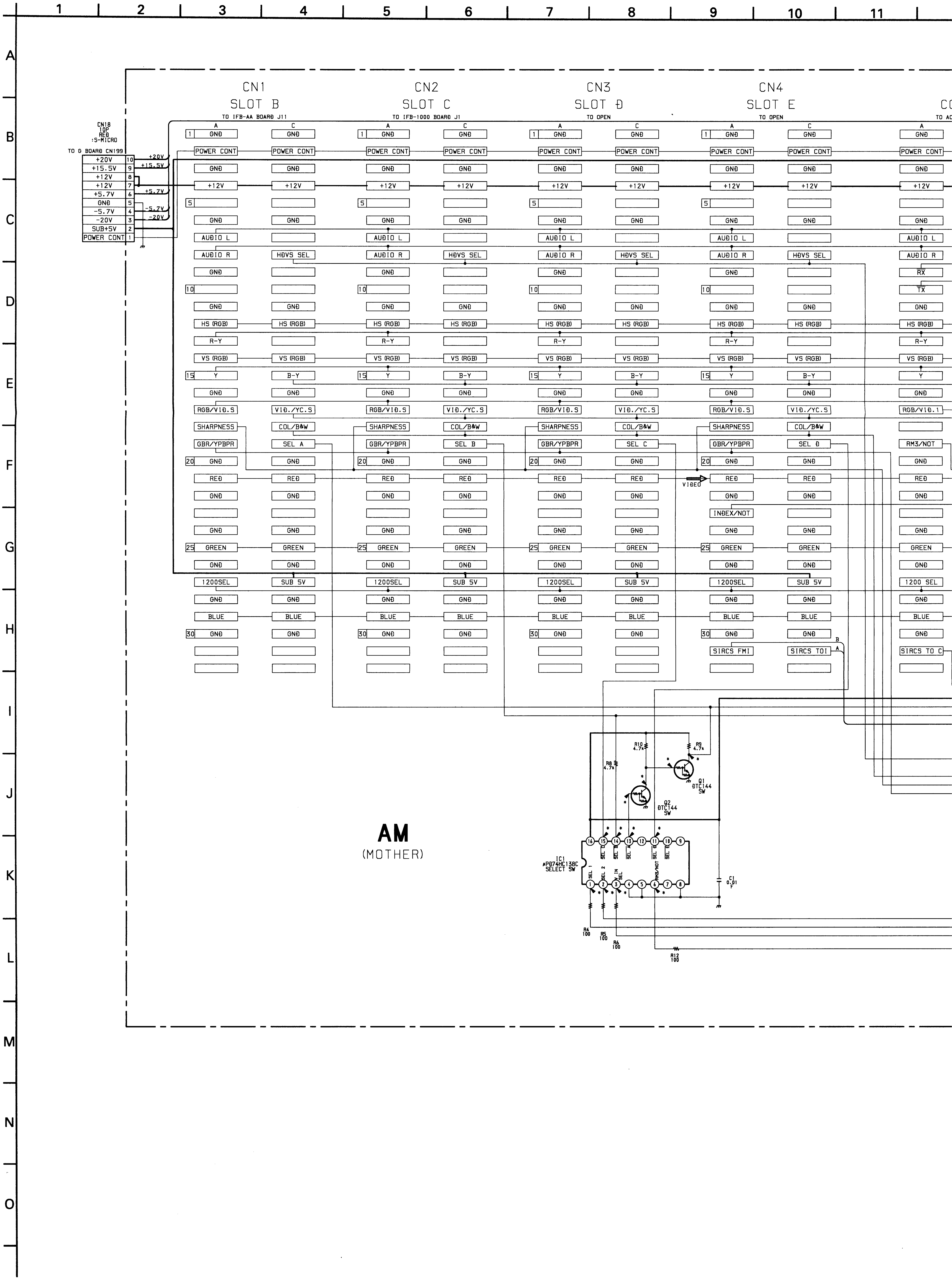
AM [MOTHER]

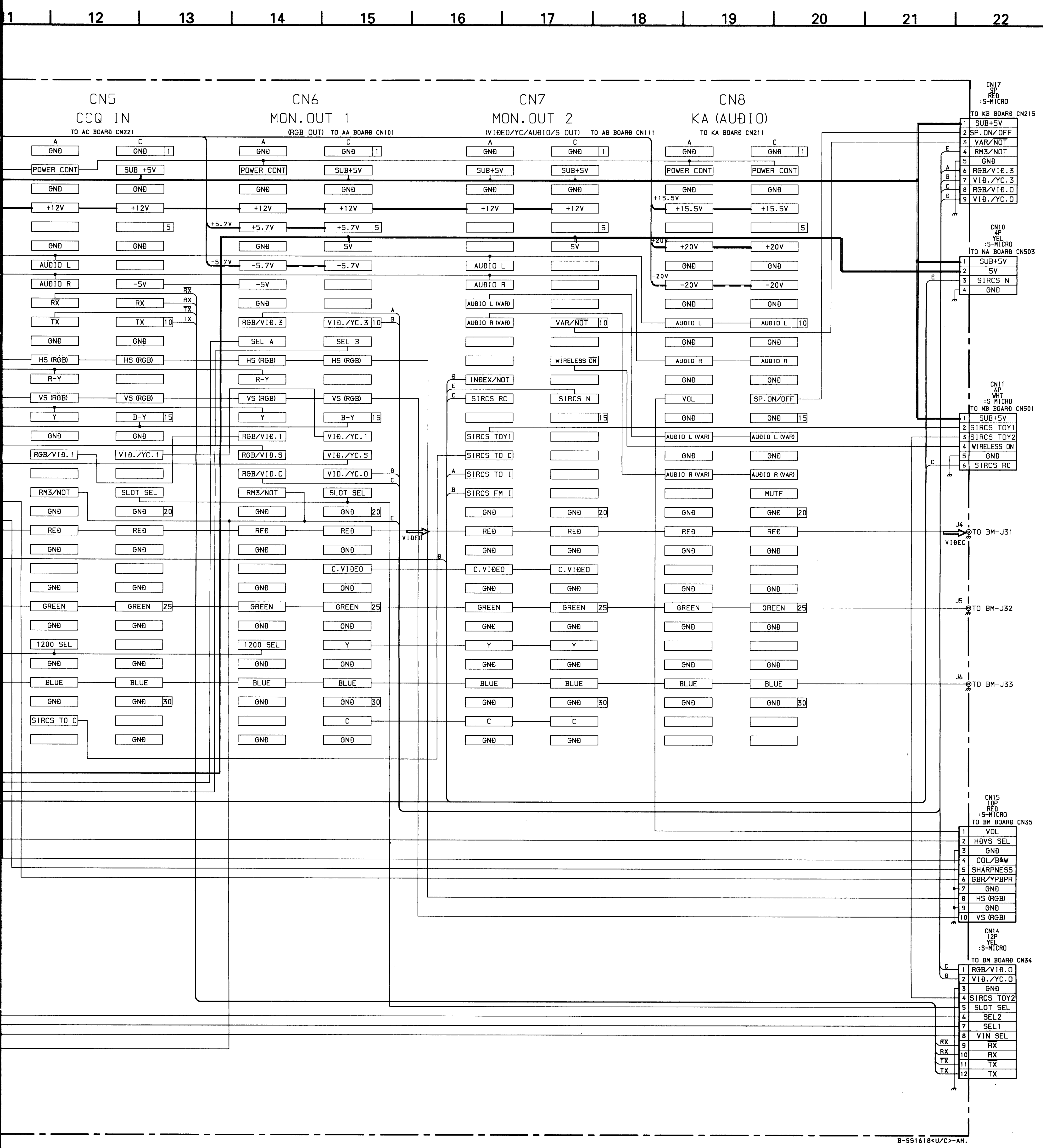
– AM BOARD –


CN17
CN13
CN8
CN7
CN6
CN5
CN4
CN3
IC1
R8
R9
R10
D1
D2
SONY
AM


SONY
CN7
CN6
CN5
CN4
CN3
CN2
CN1
33
35
40
45
50
55
60
64
15
32
+20V
+12V
GND
-5.7V
POWER CONT

- ▨ : Pattern from the side which enables seeing.
- ▨ : Pattern of the rear side.

CN1
SLOT B
TO IFB-AA BOARD J11
CN2
SLOT C
TO IFB-1000 BOARD J1
CN3
SLOT D
TO OPEN
CN4
SLOT E
TO OPEN
CN18
10P
RED
:S-MICRO
TO G BOARD CN199
+20V
+15.5V
+12V
+12V
+5.7V
GND
-5.7V
-20V
SUB+5V
POWER CONT
GND
POWER CONT
AUDIO L
AUDIO R
HDVS SEL
HS (RGB)
R-Y
VS (RGB)
Y
B-Y
RGB/VID.S
VID./YC.S
SHARPNESS
COL/B&W
GBR/YPBPR
SEL A
SEL B
SEL C
SEL D
RED
VIDEO
INDEX/NOT
GREEN
1200SEL
SUB 5V
BLUE
SIRCS FMI
SIRCS TOI
RX
TX
RGB/VID.1
RM3/NOT
R10 4.7k
R9 4.7k
R8 4.7k
Q1 DTC144 SW
Q2 DTC144 SW
IC1 μPD74HC138C SELECT SW
C1 0.01 F
R4 100
R5 100
R6 100
R12 100
AM
(MOTHER)

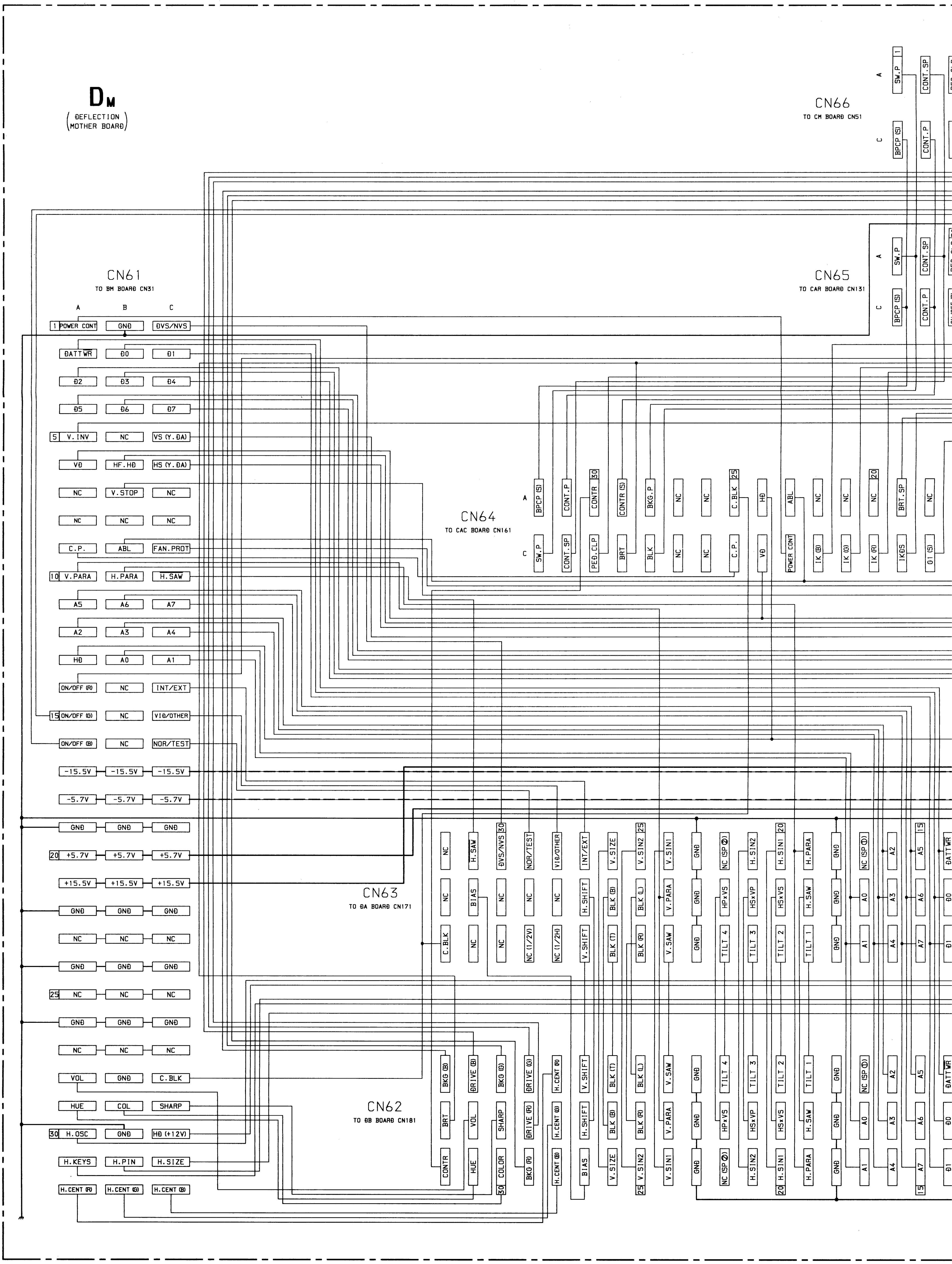

11
12
13
14
15
16
17
18
19
20
21
22
CN5
CCQ IN
TO AC BOARD CN221
CN6
MON. OUT 1
(RGB OUT) TO AA BOARD CN101
CN7
MON. OUT 2
(VIDEO/YC/AUDIO/S OUT) TO AB BOARD CN111
CN8
KA (AUDIO)
TO KA BOARD CN211
CN17 9P RED :S-MICRO
TO KB BOARD CN215
1 SUB+5V
2 SP.ON/OFF
3 VAR/NOT
4 RM3/NOT
5 GND
6 RGB/VID.3
7 VID./YC.3
8 RGB/VID.0
9 VID./YC.0
CN10 4P YEL :S-MICRO
TO NA BOARD CN503
1 SUB+5V
2 5V
3 SIRCS N
4 GND
CN11 6P WHT :S-MICRO
TO NB BOARD CN501
1 SUB+5V
2 SIRCS TOY1
3 SIRCS TOY2
4 WIRELESS ON
5 GND
6 SIRCS RC
J4
VIDEO
TO BM-J31
J5
TO BM-J32
J6
TO BM-J33
CN15 10P RED :S-MICRO
TO BM BOARD CN35
1 VOL
2 HDVS SEL
3 GND
4 COL/B&W
5 SHARPNESS
6 GBR/YPBPR
7 GND
8 HS (RGB)
9 GND
10 VS (RGB)
CN14 12P YEL :S-MICRO
TO BM BOARD CN34
1 RGB/VID.0
2 VID./YC.0
3 GND
4 SIRCS TOY2
5 SLOT SEL
6 SEL2
7 SEL1
8 VIN SEL
9 RX
10 RX
11 TX
12 TX
B-SS1618<U/C>-AM.

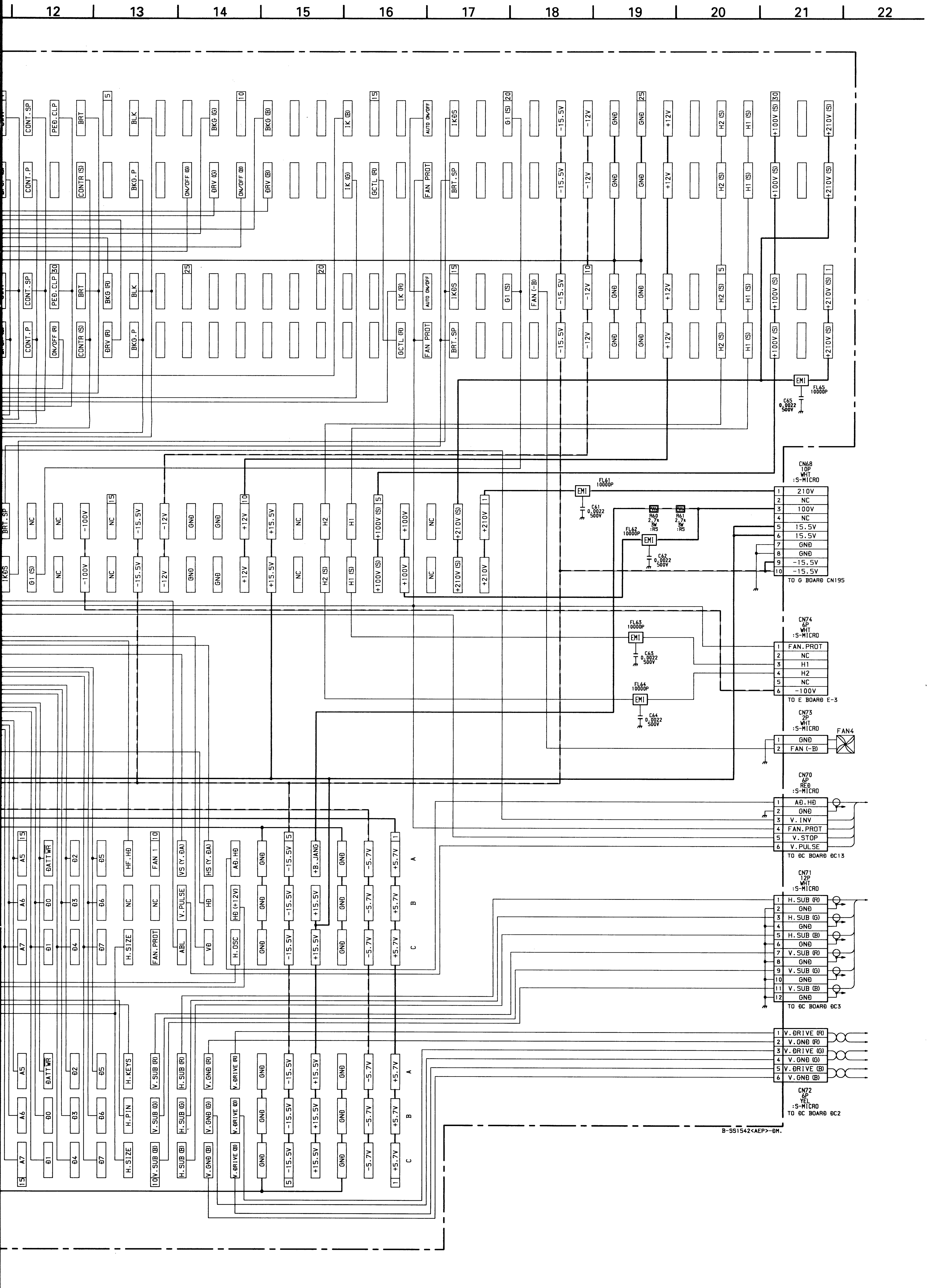
Schematic diagram

← AM board

Schematic diagram

DM board ➡

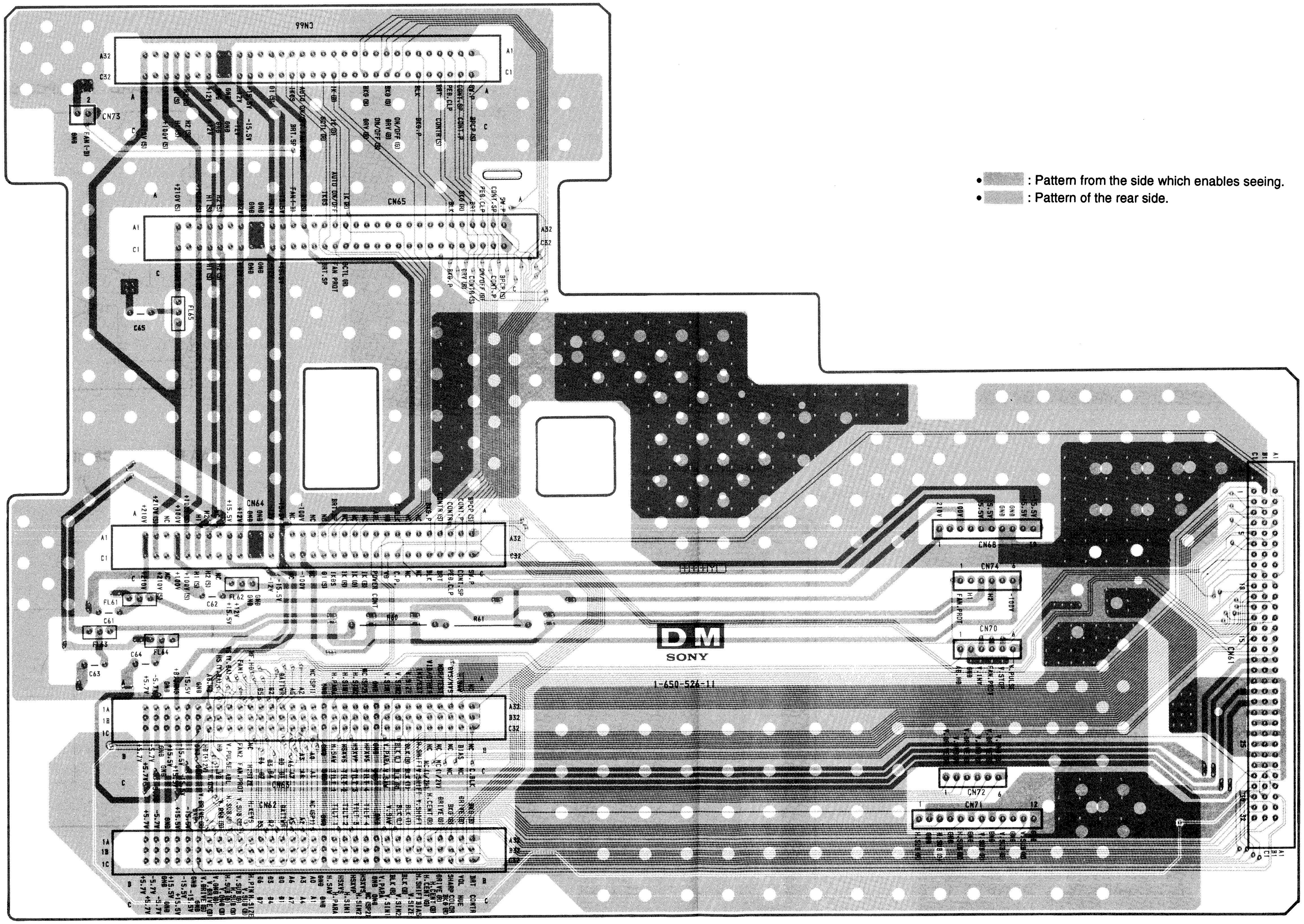

DM
(DEFLECTION MOTHER BOARD)
CN61
TO BM BOARD CN31
CN62
TO BB BOARD CN181
CN63
TO BA BOARD CN171
CN64
TO CAC BOARD CN161
CN65
TO CAR BOARD CN131
CN66
TO CM BOARD CN51
A B C
1 POWER CONT GND DVS/NVS
DATTWR D0 D1
D2 D3 D4
D5 D6 D7
5 V.INV NC VS (Y.DA)
VD HF.HD HS (Y.DA)
NC V.STOP NC
NC NC NC
C.P. ABL FAN.PROT
10 V.PARA H.PARA H.SAW
A5 A6 A7
A2 A3 A4
HD A0 A1
ON/OFF (R) NC INT/EXT
15 ON/OFF (G) NC VID/OTHER
ON/OFF (B) NC NOR/TEST
-15.5V -15.5V -15.5V
-5.7V -5.7V -5.7V
GND GND GND
20 +5.7V +5.7V +5.7V
+15.5V +15.5V +15.5V
GND GND GND
NC NC NC
GND GND GND
25 NC NC NC
GND GND GND
NC NC NC
VOL GND C.BLK
HUE COL SHARP
30 H.OSC GND HD (+12V)
H.KEYS H.PIN H.SIZE
H.CENT (R) H.CENT (G) H.CENT (B)


12
13
14
15
16
17
18
19
20
21
22
CONT.SP
PED.CLP
BRT
BLK
BKG (G)
BKG (B)
IK (B)
AUTO ON/OFF
IKDS
G1 (S)
-15.5V
-12V
GND
+12V
H2 (S)
H1 (S)
+100V (S)
+210V (S)
CONT.P
CONTR (S)
BKG.P
ON/OFF (G)
DRV (G)
ON/OFF (B)
DRV (B)
IK (G)
GCTL (G)
FAN PROT
BRT.SP
BKG (R)
IK (R)
FAN (-B)
ON/OFF (R)
DRV (R)
GCTL (R)
EMI
FL65
10000P
C65
0.0022
500V
FL61
10000P
C61
0.0022
500V
R60
2.7k
3W
:RS
R61
2.7k
3W
:RS
FL62
10000P
C62
0.0022
500V
NC
-100V
+15.5V
H2
H1
+100V
+210V
CN68
10P
WHT
:S-MICRO
1 210V
2 NC
3 100V
4 NC
5 15.5V
6 15.5V
7 GND
8 GND
9 -15.5V
10 -15.5V
TO G BOARD CN195
FL63
10000P
C63
0.0022
500V
CN74
6P
WHT
:S-MICRO
1 FAN.PROT
2 NC
3 H1
4 H2
5 NC
6 -100V
TO E BOARD E-3
FL64
10000P
C64
0.0022
500V
CN73
2P
WHT
:S-MICRO
1 GND
2 FAN (-B)
FAN4
CN70
6P
RED
:S-MICRO
1 AD.HD
2 GND
3 V.INV
4 FAN.PROT
5 V.STOP
6 V.PULSE
TO DC BOARD DC13
A5
DATTWR
D2
D5
HF.HD
FAN 1
VS (Y.DA)
HS (Y.DA)
AD.HD
-15.5V
+B.JANG
-5.7V
+5.7V
A
A6
D0
D3
D6
NC
V.PULSE
HD
HD (+12V)
+15.5V
B
A7
D1
D4
D7
H.SIZE
FAN.PROT
ABL
VD
H.OSC
C
CN71
12P
WHT
:S-MICRO
1 H.SUB (R)
2 GND
3 H.SUB (G)
4 GND
5 H.SUB (B)
6 GND
7 V.SUB (R)
8 GND
9 V.SUB (G)
10 GND
11 V.SUB (B)
12 GND
TO DC BOARD DC3
H.KEYS
V.SUB (R)
H.SUB (R)
V.GND (R)
V.DRIVE (R)
H.PIN
V.SUB (G)
H.SUB (G)
V.GND (G)
V.DRIVE (G)
10V.SUB (B)
H.SUB (B)
V.GND (B)
V.DRIVE (B)
CN72
6P
YEL
:S-MICRO
1 V.DRIVE (R)
2 V.GND (R)
3 V.DRIVE (G)
4 V.GND (G)
5 V.DRIVE (B)
6 V.GND (B)
TO DC BOARD DC2
B-SS1542<AEP>-DM.

DM [DEFLECTION MOTHER BOARD]

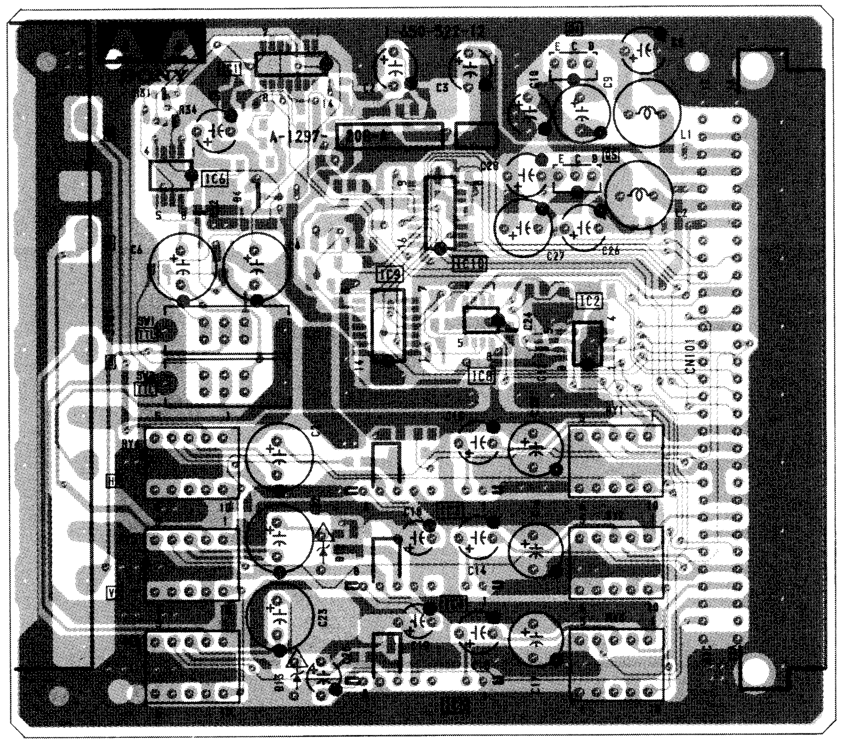
– DM BOARD –

- ▨ : Pattern from the side which enables seeing.
- ▨ : Pattern of the rear side.

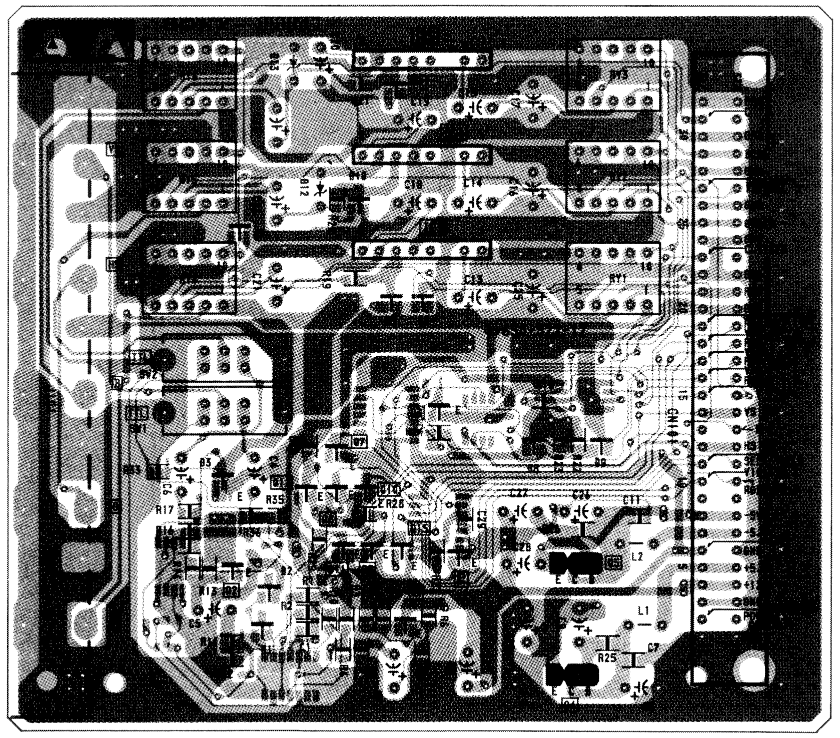

CN66
CN73
CN65
FL65
C65
CN64
FL61
FL62
C61
C62
C63
C64
FL63
FL64
R60
R61
CN62
CN68
CN74
CN70
CN72
CN71
CN61
DM
SONY
1-650-524-11

AA [MONITOR OUT]

– AA BOARD – <Component Side>

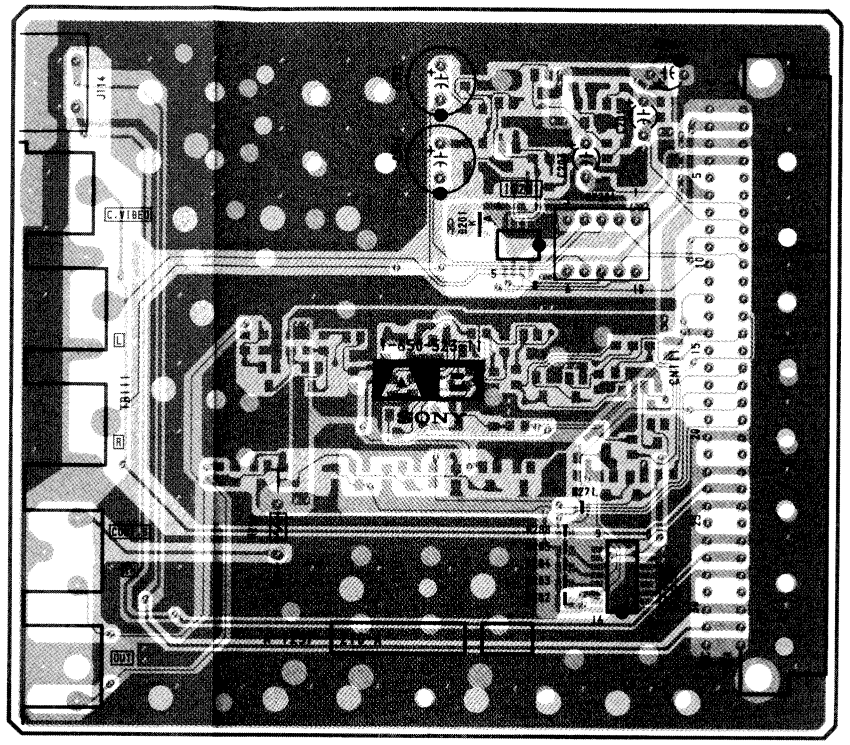


<Conductor Side>

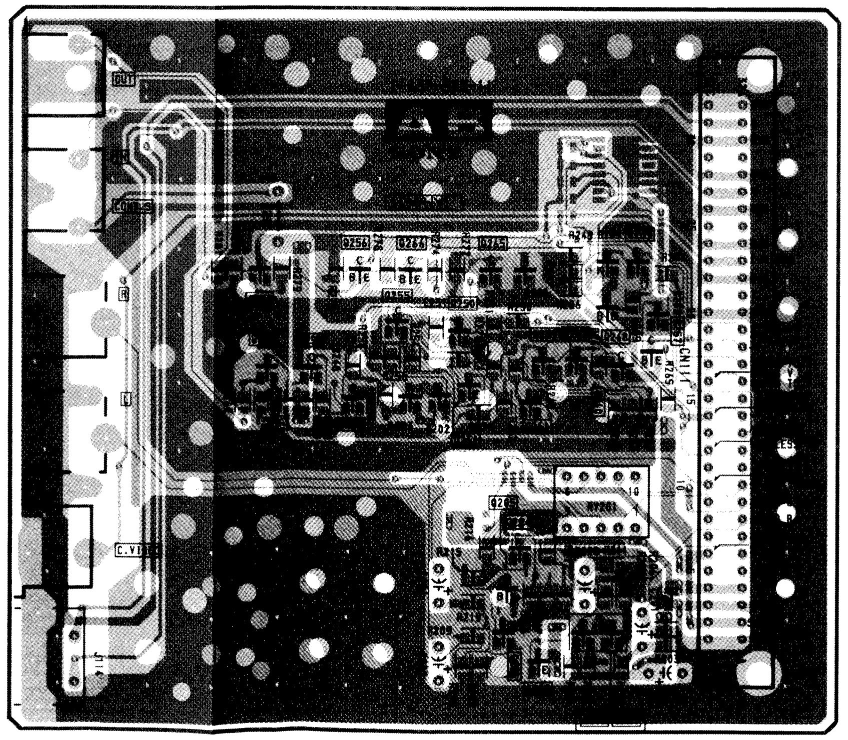


AB [SIRCS]

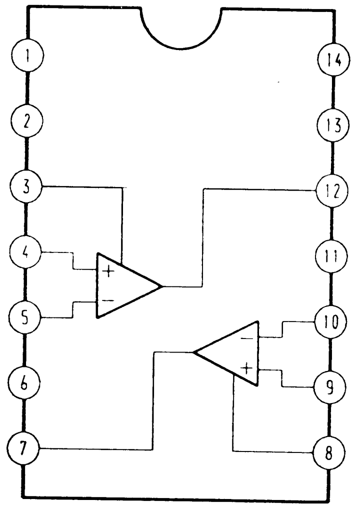
– AB BOARD – <Component Side>



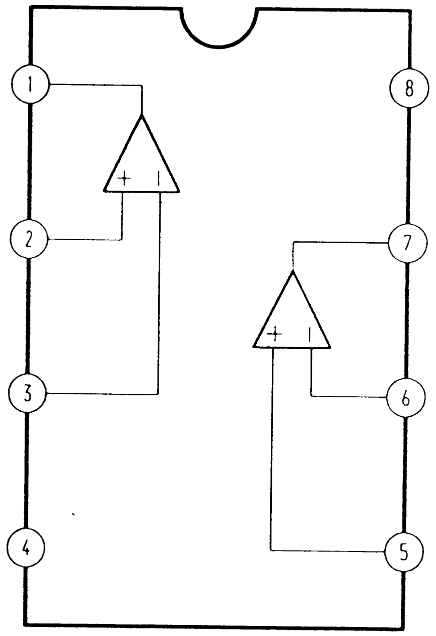
<Conductor Side>



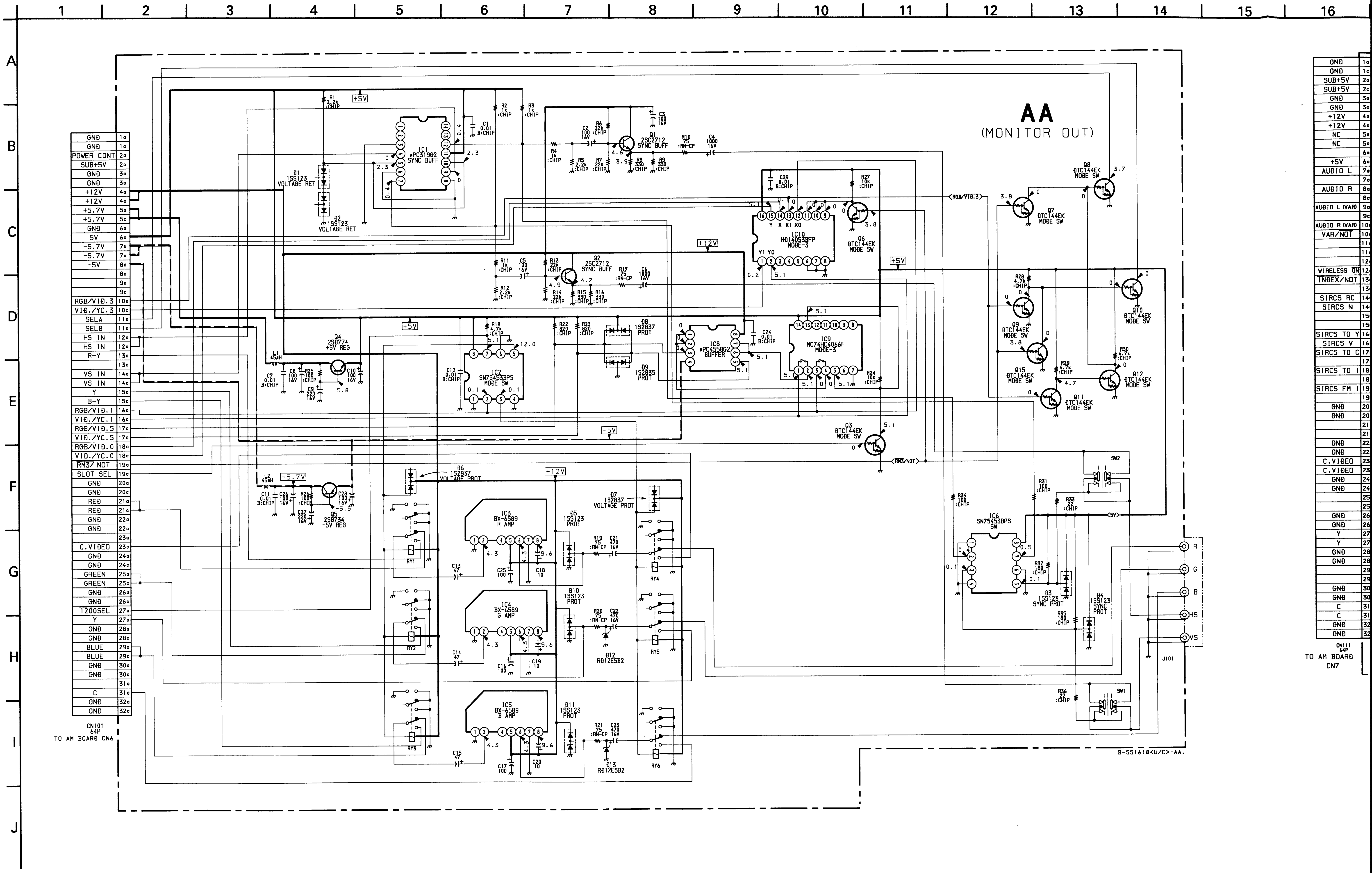
AA BOARD IC1 μPC319G2

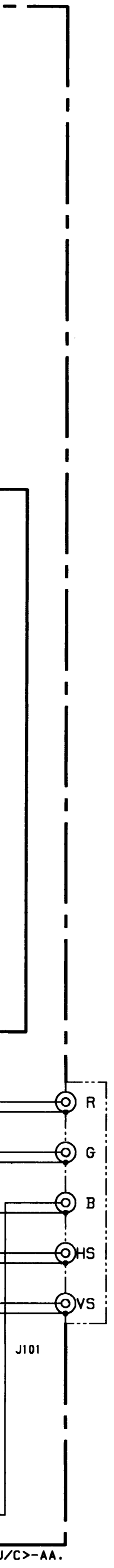

1
2
3
4
5
6
7
14
13
12
11
10
9
8
+
−
−
+

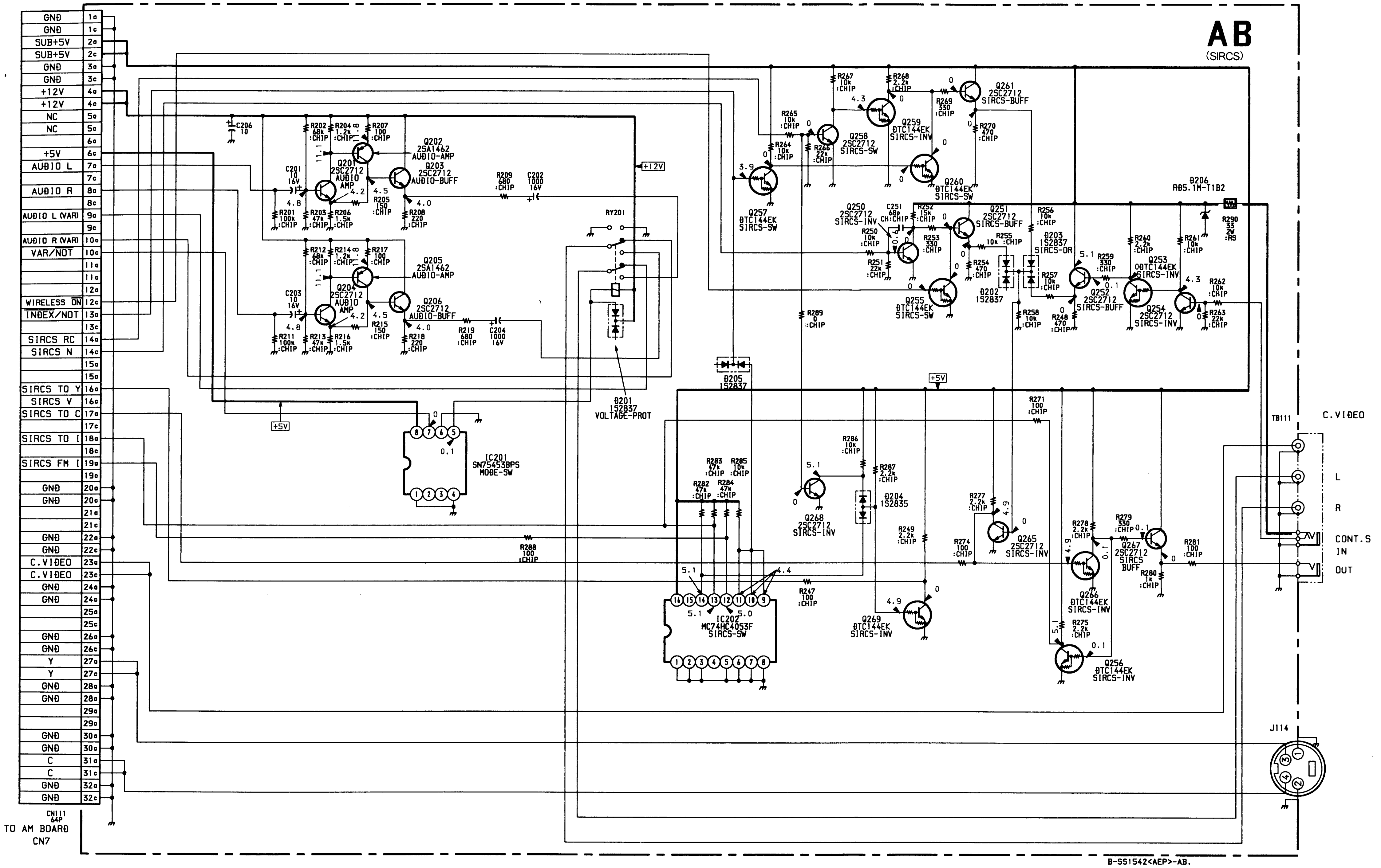
AA BOARD IC8 μPC4558G2



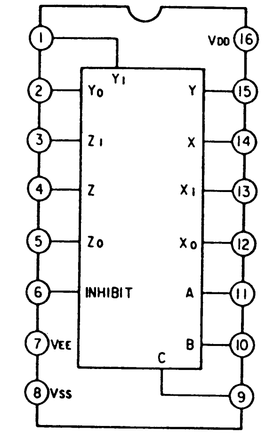
- ▨ : Pattern from the side which enables seeing.
- ▨ : Pattern of the rear side.


AA
(MONITOR OUT)
CN101
64P
TO AM BOARD CN6
CN111
64P
TO AM BOARD CN7
GND
POWER CONT
SUB+5V
+12V
+5.7V
5V
-5.7V
-5V
RGB/VID.3
VID./YC.3
SELA
SELB
HS IN
R-Y
VS IN
Y
B-Y
RGB/VID.1
VID./YC.1
RGB/VID.S
VID./YC.S
RGB/VID.0
VID./YC.0
RM3/ NOT
SLOT SEL
RED
C.VIDEO
GREEN
1200SEL
BLUE
C
NC
AUDIO L
AUDIO R
AUDIO L (VAR)
AUDIO R (VAR)
VAR/NOT
WIRELESS ON
INDEX/NOT
SIRCS RC
SIRCS N
SIRCS TO Y
SIRCS V
SIRCS TO C
SIRCS TO I
SIRCS FM I
IC1 μPC1962 SYNC BUFF
IC2 SN75453BPS MODE SW
IC3 BX-6589 R AMP
IC4 BX-6589 G AMP
IC5 BX-6589 B AMP
IC6 SN75453BPS SW
IC8 μPC4558G2 BUFFER
IC9 MC74HC4066F MODE-3
IC10 HD14053BFP MODE-3
Q1 2SC2712 SYNC BUFF
Q2 2SC2712 SYNC BUFF
Q3 DTC144EK MODE SW
Q4 2SD774 +5V REG
Q5 2SB734 -5V REG
Q6 DTC144EK MODE SW
Q7 DTC144EK MODE SW
Q8 DTC144EK MODE SW
Q9 DTC144EK MODE SW
Q10 DTC144EK MODE SW
Q11 DTC144EK MODE SW
Q12 DTC144EK MODE SW
Q15 DTC144EK MODE SW
D1 1SS123 VOLTAGE RET
D2 1SS123 VOLTAGE RET
D3 1SS123 SYNC PROT
D4 1SS123 SYNC PROT
D5 1SS123 PROT
D6 1S2837 VOLTAGE PROT
D7 1S2837 VOLTAGE PROT
D8 1S2837 PROT
D9 1S2835 PROT
D10 1SS123 PROT
D11 1SS123 PROT
D12 RD12ESB2
D13 RD12ESB2
L1 45μH
L2 45μH
RY1
RY2
RY3
RY4
RY5
RY6
SW1
SW2
J101
R
G
B
HS
VS
+5V
-5V
+12V
-5.7V
<RGB/VID.3>
<RM3/NOT>
<5V>
B-SS1618<U/C>-AA.

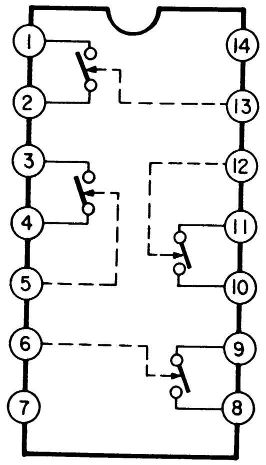

R
G
B
HS
VS
J101
/C>-AA.


14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
AB
(SIRCS)
GND
SUB+5V
+12V
NC
+5V
AUDIO L
AUDIO R
AUDIO L (VAR)
AUDIO R (VAR)
VAR/NOT
WIRELESS ON
INDEX/NOT
SIRCS RC
SIRCS N
SIRCS TO Y
SIRCS V
SIRCS TO C
SIRCS TO I
SIRCS FM I
C.VIDEO
Y
C
CN111
64P
TO AM BOARD
CN7
Q201
2SC2712
AUDIO AMP
Q202
2SA1462
AUDIO-AMP
Q203
2SC2712
AUDIO-BUFF
Q204
2SC2712
AUDIO AMP
Q205
2SA1462
AUDIO-AMP
Q206
2SC2712
AUDIO-BUFF
RY201
D201
1S2837
VOLTAGE-PROT
IC201
SN75453BPS
MODE-SW
+12V
+5V
D205
1S2837
IC202
MC74HC4053F
SIRCS-SW
Q257
DTC144EK
SIRCS-SW
Q258
2SC2712
SIRCS-SW
Q259
DTC144EK
SIRCS-INV
Q260
DTC144EK
SIRCS-SW
Q261
2SC2712
SIRCS-BUFF
Q250
2SC2712
SIRCS-INV
Q251
2SC2712
SIRCS-BUFF
Q255
DTC144EK
SIRCS-SW
D202
1S2837
D203
1S2837
SIRCS-OR
Q252
2SC2712
SIRCS-BUFF
Q253
DTC144EK
SIRCS-INV
Q254
2SC2712
SIRCS-INV
D206
RD5.1M-T1B2
Q268
2SC2712
SIRCS-INV
D204
1S2835
Q269
DTC144EK
SIRCS-INV
Q265
2SC2712
SIRCS-INV
Q266
DTC144EK
SIRCS-INV
Q267
2SC2712
SIRCS
BUFF
Q256
DTC144EK
SIRCS-INV
TB111
C.VIDEO
L
R
CONT.S
IN
OUT
J114
B-SS1542<AEP>-AB.

AA BOARD IC10 HD14053BFP

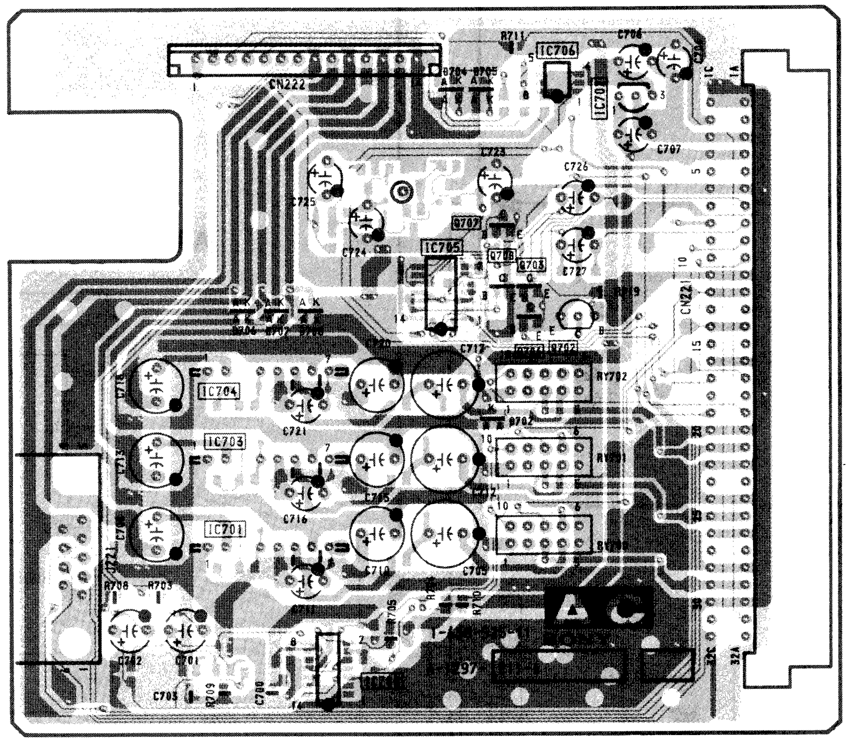

VDD
Y0
Y1
Y
Z1
X
Z
X1
Z0
X0
INHIBIT
A
VEE
B
VSS
C

AA BOARD IC9 MC74HC4066F

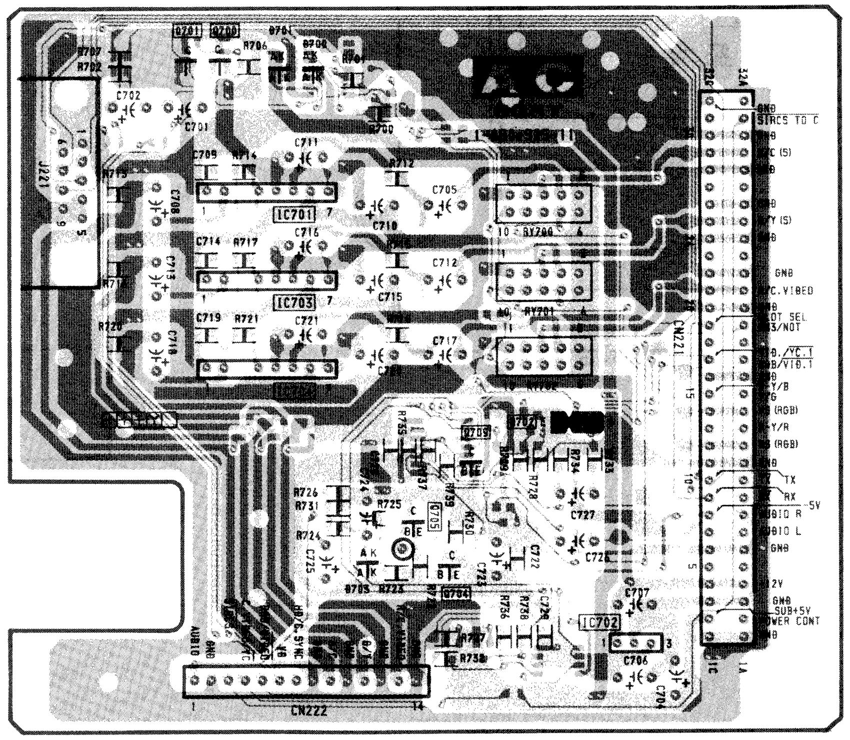

1
2
3
4
5
6
7
8
9
10
11
12
13
14

AC [CCQ INTERFACE]

– **AC BOARD** – <Component Side>


CN222
IC706
IC705
IC704
IC703
IC701
CN221
AC

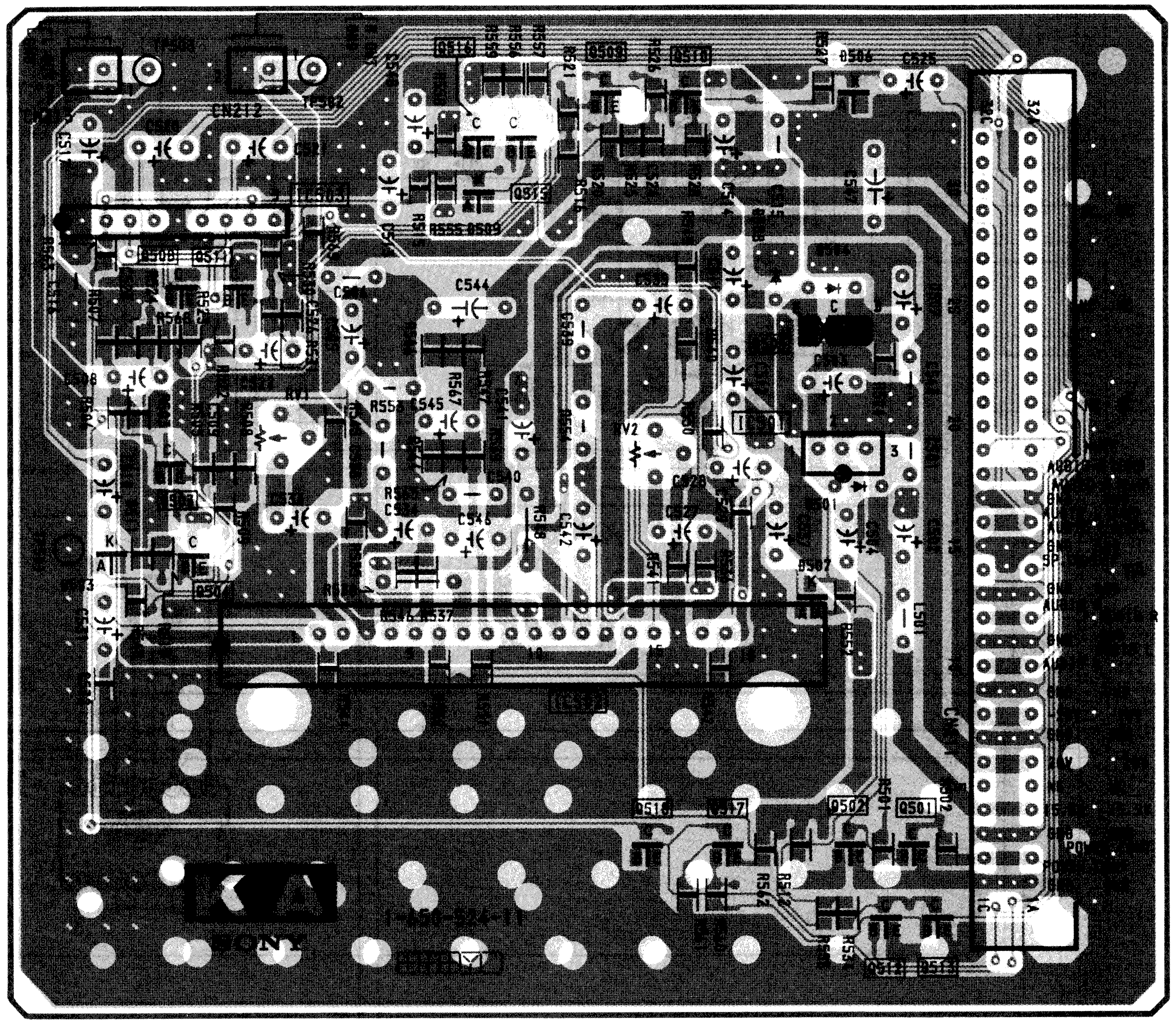
<Conductor Side>


AC
IC701
IC703
IC702
CN221
CN222
GND
RY700
RY701
J221

Schematic diagrams
← AA, AB **boards**

KA [AUDIO]

– **KA BOARD** –


CN212
C544
C545
RV1
RV2
Q501
Q502
KA
SONY

KB BOARD

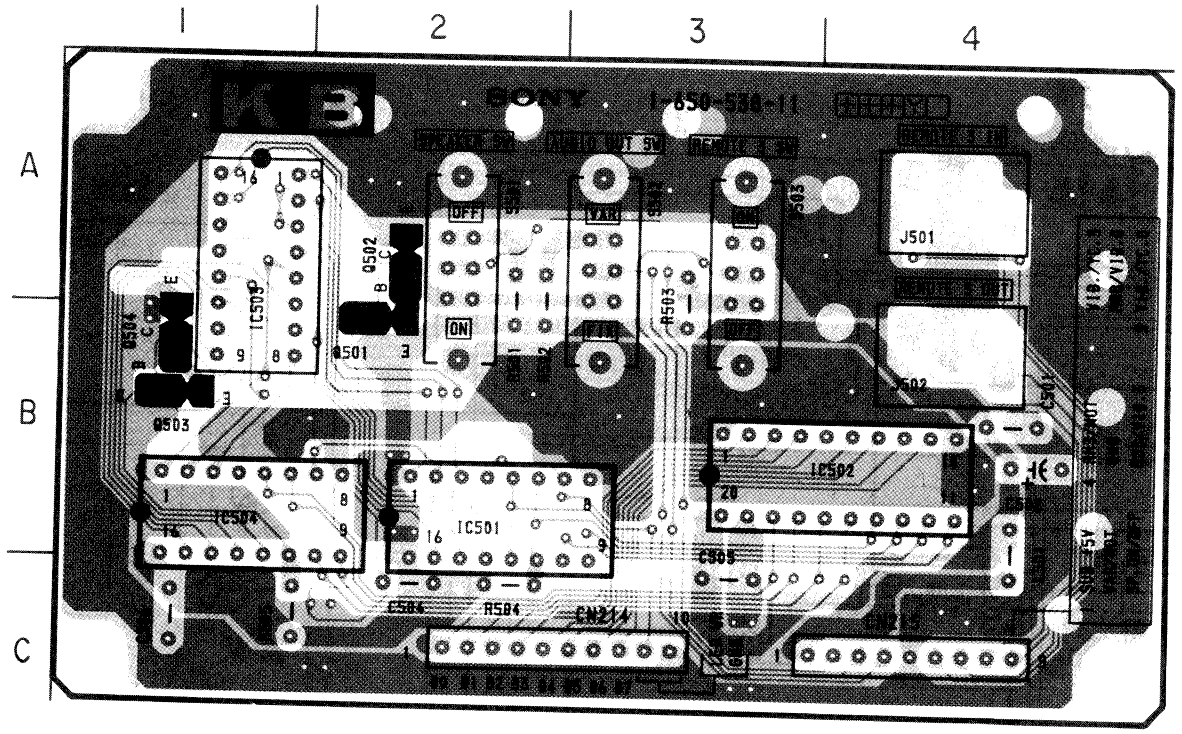
IC	
IC501	B-2
IC502	B-4
IC503	A-1
IC504	B-1
TRANSISTOR	
Q501	B-2
Q502	A-2
Q503	B-1
Q504	B-1

KB [ERROR CODE DISPLAY]

KB BOARD

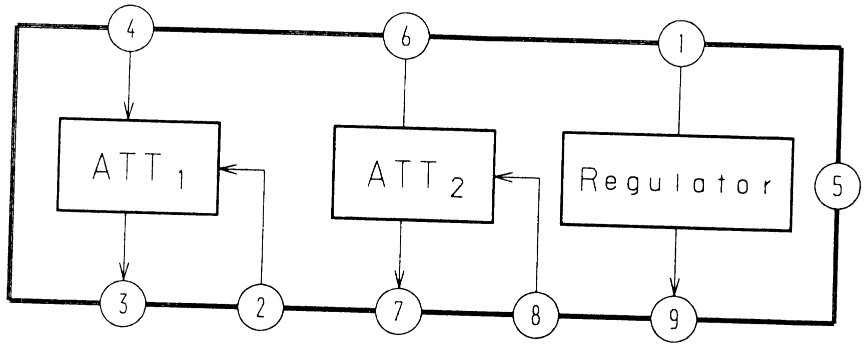
IC	
IC501	B-2
IC502	B-4
IC503	A-1
IC504	B-1
TRANSISTOR	
Q501	B-2
Q502	A-2
Q503	B-1
Q504	B-1

– KB BOARD –

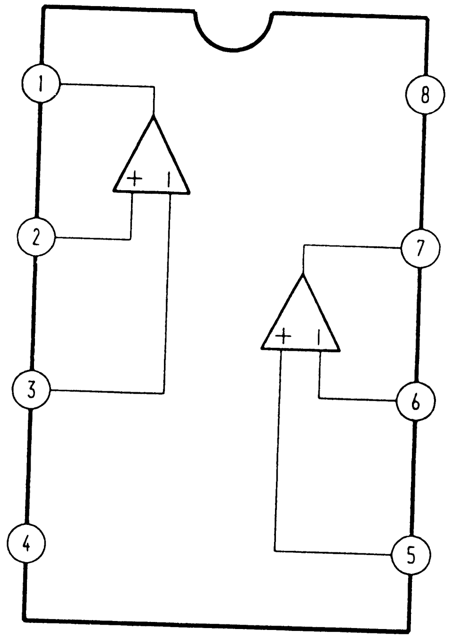

1
2
3
4
A
B
C
KB
SONY
1-650-538-11
IC501
IC502
IC503
IC504
Q501
Q502
Q503
Q504
J501
J502
R503
R504
C504
C505
CN214
CN215
ON
OFF

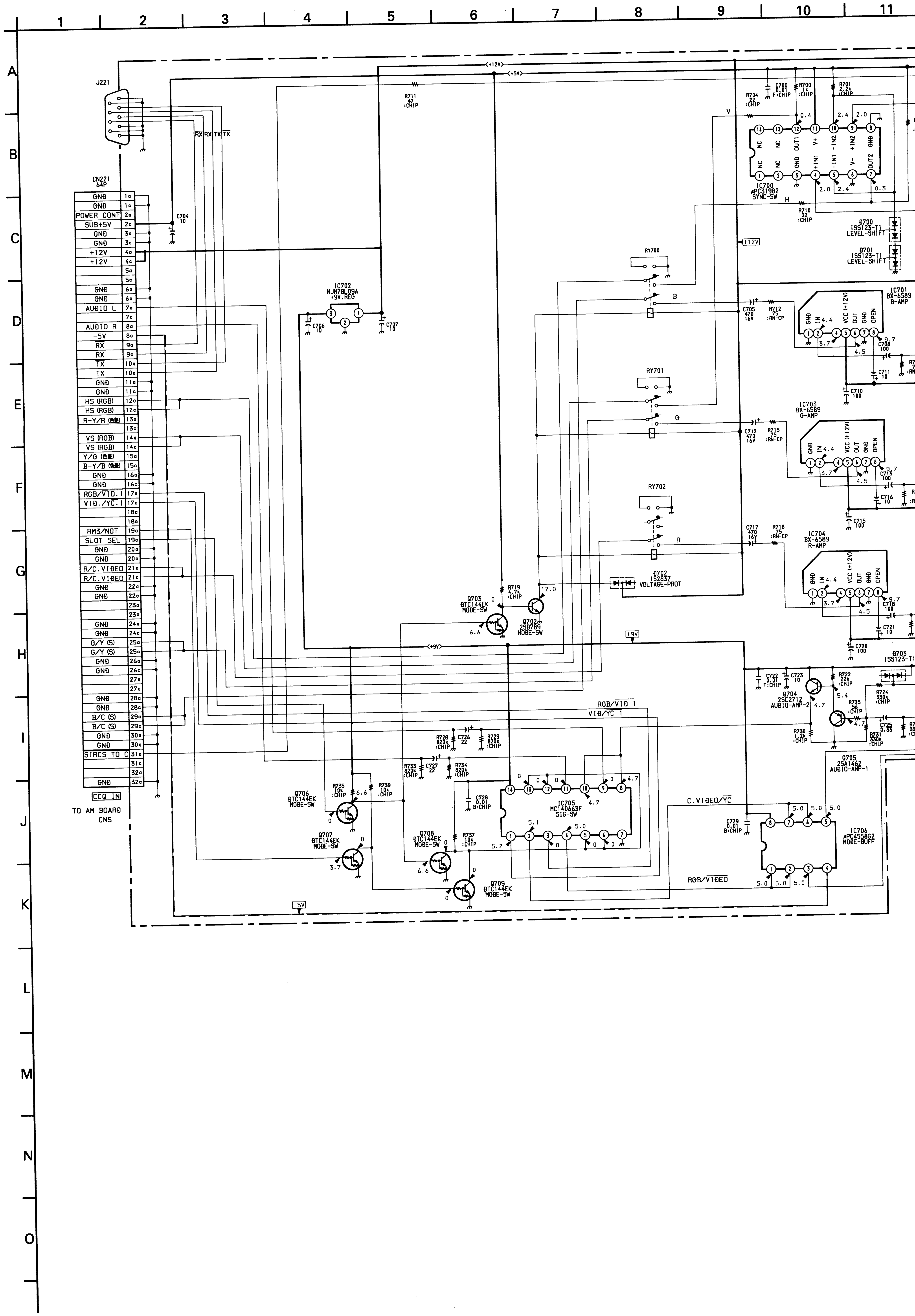
- ░ : Pattern from the side which enables seeing.
- ▨ : Pattern of the rear side.

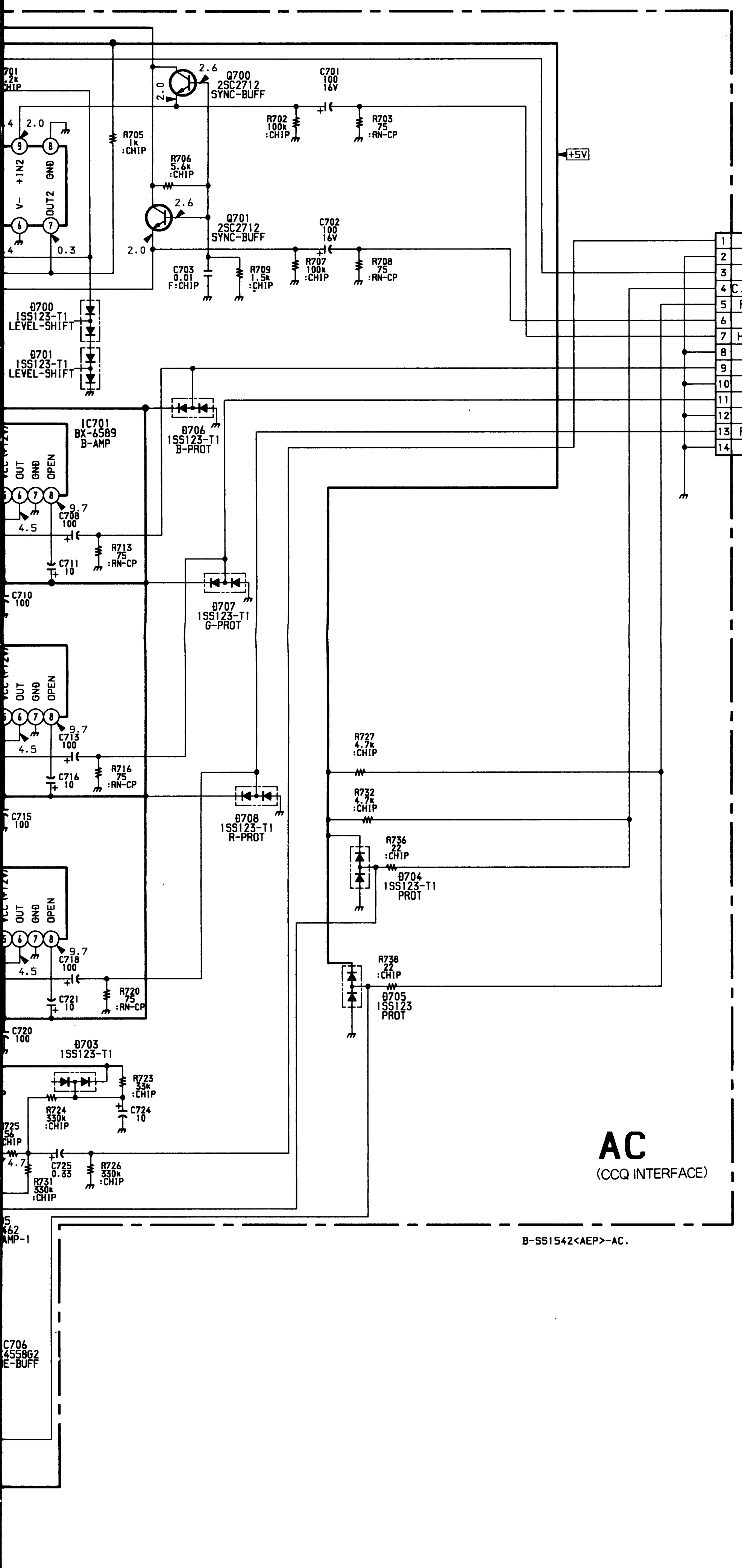
KA BOARD IC503 μPC1406HA


ATT1
ATT2
Regulator
1
2
3
4
5
6
7
8
9

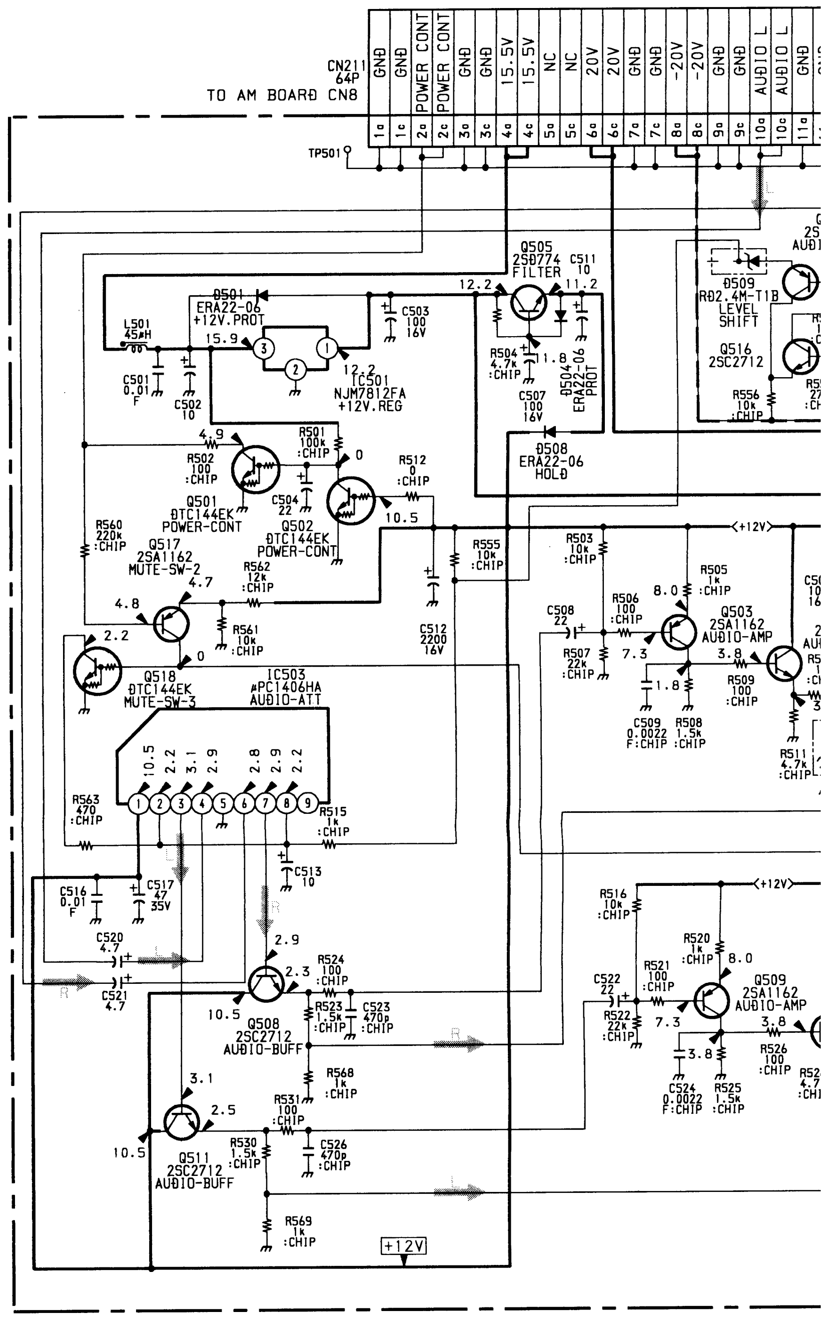
AC BOARD IC706 μPC4558G2

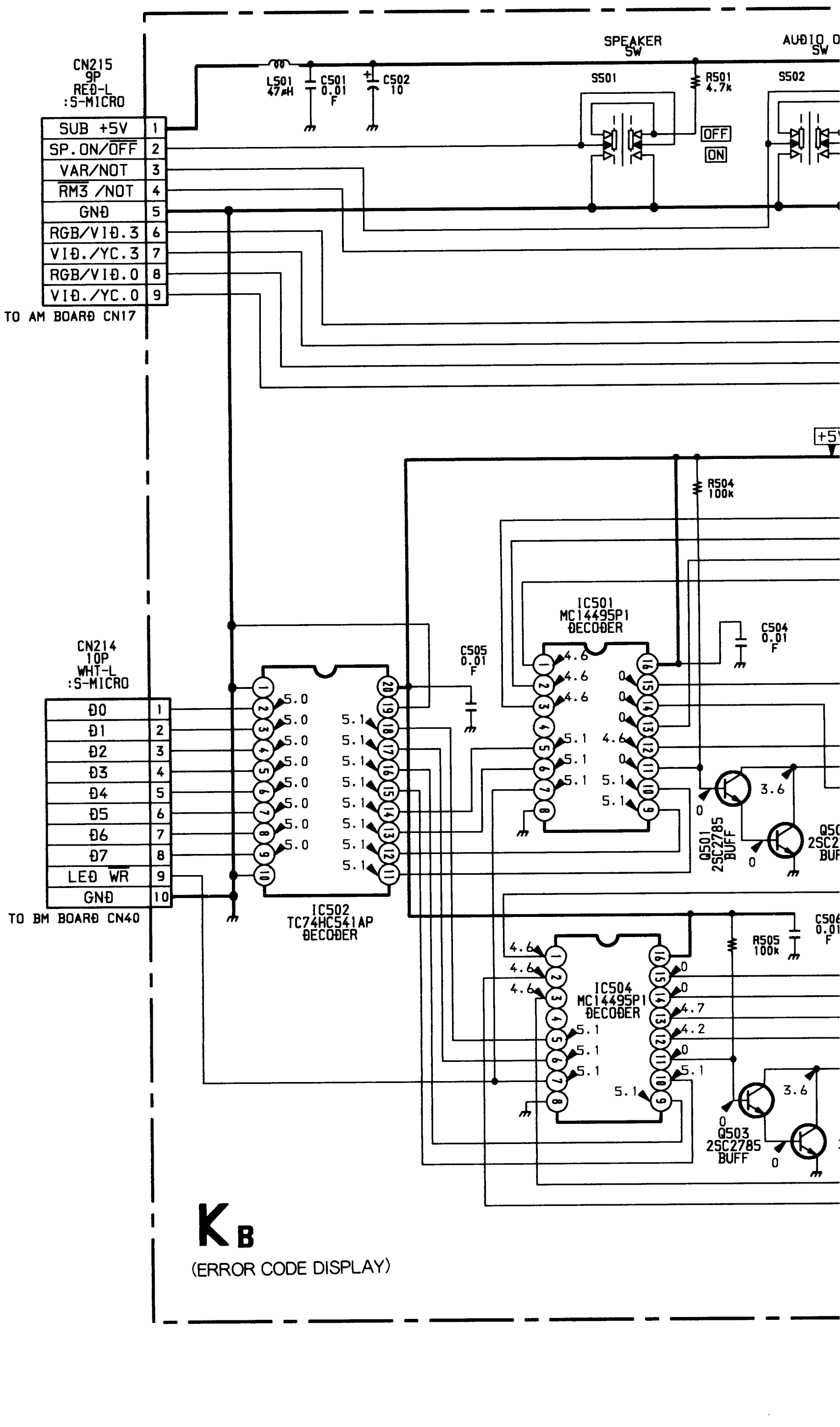



J221
CN221 64P
GND 1a
GND 1c
POWER CONT 2a
SUB+5V 2c
GND 3a
GND 3c
+12V 4a
+12V 4c
GND 6a
GND 6c
AUDIO L 7a
AUDIO R 8a
-5V 8c
RX 9a
RX 9c
TX 10a
TX 10c
GND 11a
GND 11c
HS (RGB) 12a
HS (RGB) 12c
R-Y/R 13a
VS (RGB) 14a
VS (RGB) 14c
Y/G 15a
B-Y/B 15c
GND 16a
GND 16c
RGB/VID.1 17a
VID./YC.1 17c
RM3/NOT 19a
SLOT SEL 19c
GND 20a
GND 20c
R/C.VIDEO 21a
R/C.VIDEO 21c
GND 22a
GND 22c
GND 24a
GND 24c
G/Y (S) 25a
G/Y (S) 25c
GND 26a
GND 26c
GND 28a
GND 28c
B/C (S) 29a
B/C (S) 29c
GND 30a
GND 30c
SIRCS TO C 31a
GND 32c
CCQ IN
TO AM BOARD CN5
C704 10
R711 47 :CHIP
IC702 NJM78L09A +9V.REG
C706 10
C707 10
IC700 μPC319G2 SYNC-SW
C700 0.01 F:CHIP
R700 1k :CHIP
R701 2.2k :CHIP
R704 22 :CHIP
R710 22 :CHIP
D700 1SS123-T1 LEVEL-SHIFT
D701 1SS123-T1 LEVEL-SHIFT
RY700
RY701
RY702
IC701 BX-6589 B-AMP
IC703 BX-6589 G-AMP
IC704 BX-6589 R-AMP
C705 470 16V
R712 75 :RN-CP
C712 470 16V
R715 75 :RN-CP
C717 470 16V
R718 75 :RN-CP
C708 100
C711 10
C710 100
C713 100
C716 10
C715 100
C718 100
C721 10
C720 100
D702 1S2837 VOLTAGE-PROT
D703 1SS123-T1
Q703 DTC144EK MODE-SW
Q702 2SD789 MODE-SW
R719 4.7k :CHIP
Q704 2SC2712 AUDIO-AMP-2
Q705 2SA1462 AUDIO-AMP-1
C722 0.01 F:CHIP
C723 10
R722 22k :CHIP
R724 330k :CHIP
R725 56 :CHIP
C725 0.33
R730 1.2k :CHIP
R731 330k :CHIP
RGB/VID 1
VID/YC 1
R728 820k :CHIP
C726 22
R729 820k :CHIP
R733 820k :CHIP
C727 22
R734 820k :CHIP
C728 0.01 B:CHIP
IC705 MC14066BF SIG-SW
Q706 DTC144EK MODE-SW
Q707 DTC144EK MODE-SW
Q708 DTC144EK MODE-SW
Q709 DTC144EK MODE-SW
R735 10k :CHIP
R739 10k :CHIP
R737 10k :CHIP
C.VIDEO/YC
RGB/VIDEO
C729 0.01 B:CHIP
IC706 μPC4558G2 MODE-BUFF
+12V
+5V
+9V
-5V

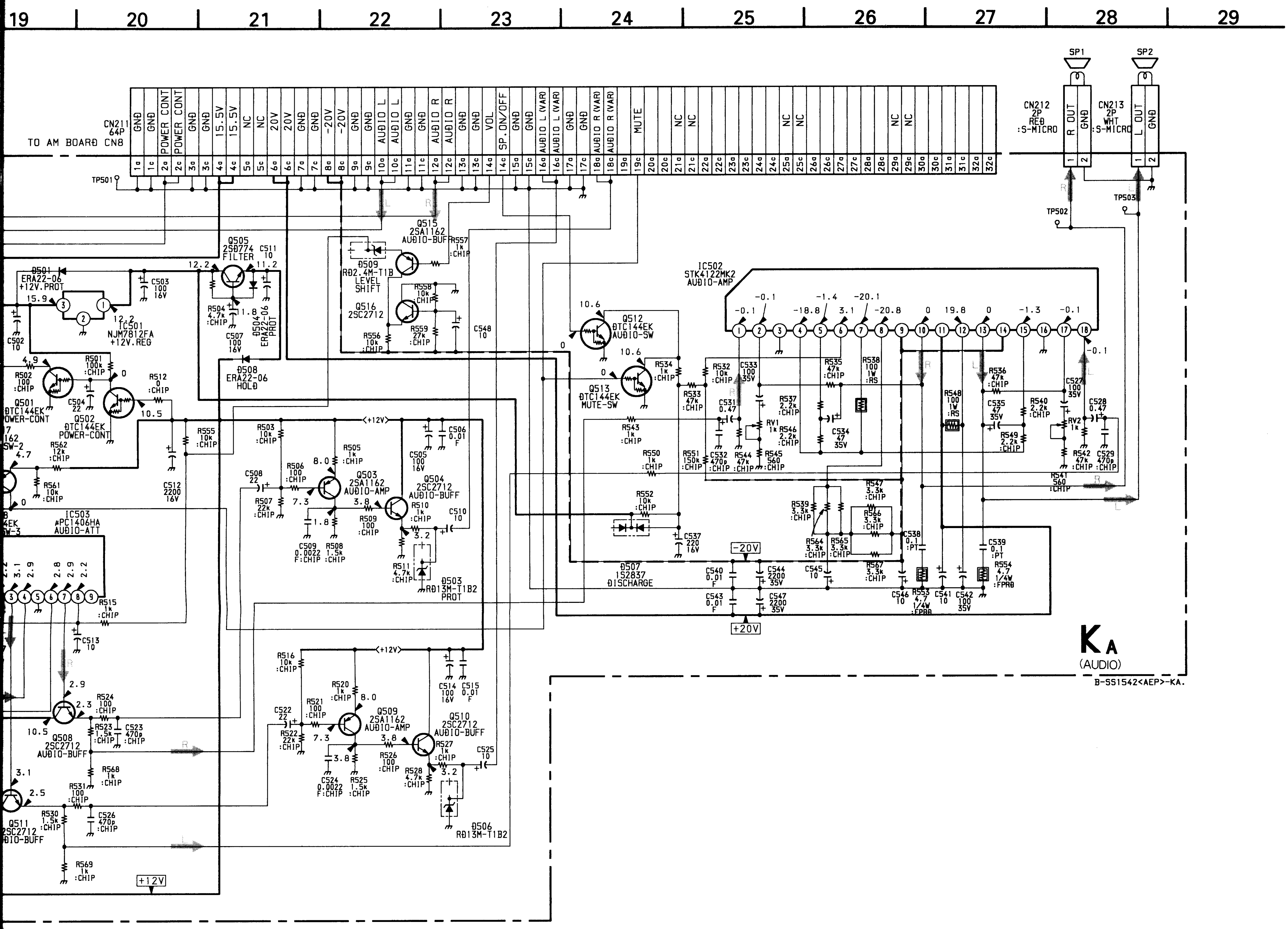

Q700
2SC2712
SYNC-BUFF
Q701
2SC2712
SYNC-BUFF
+5V
CN222
14P
WHT
:S-MICRO
1 AUDIO
2 GND
3 SIRCS
4 C.VIDEO/YC
5 RGB/VIDEO
6 VD
7 HD/C.SYNC
8 GND
9 B/C
10 GND
11 G/Y
12 GND
13 R/C.VIDEO
14 GND
CCQ IN
D700
1SS123-T1
LEVEL-SHIFT
D701
1SS123-T1
LEVEL-SHIFT
IC701
BX-6589
B-AMP
D706
1SS123-T1
B-PROT
D707
1SS123-T1
G-PROT
D708
1SS123-T1
R-PROT
D704
1SS123-T1
PROT
D705
1SS123
PROT
D703
1SS123-T1
IC706
4558G2
E-BUFF
B-SS1542<AEP>-AC.

AC
(CCQ INTERFACE)


CN211
64P
TO AM BOARD CN8
GND
GND
POWER CONT
POWER CONT
GND
GND
15.5V
15.5V
NC
NC
20V
20V
GND
GND
-20V
-20V
GND
GND
AUDIO L
AUDIO L
GND
TP501
D501
ERA22-06
+12V.PROT
IC501
NJM7812FA
+12V.REG
Q505
2SD774
FILTER
D504
ERA22-06
PROT
D508
ERA22-06
HOLD
Q501
DTC144EK
POWER-CONT
Q502
DTC144EK
POWER-CONT
Q517
2SA1162
MUTE-SW-2
Q518
DTC144EK
MUTE-SW-3
IC503
μPC1406HA
AUDIO-ATT
Q503
2SA1162
AUDIO-AMP
Q509
2SA1162
AUDIO-AMP
Q508
2SC2712
AUDIO-BUFF
Q511
2SC2712
AUDIO-BUFF
Q509
LEVEL SHIFT
Q516
2SC2712
+12V

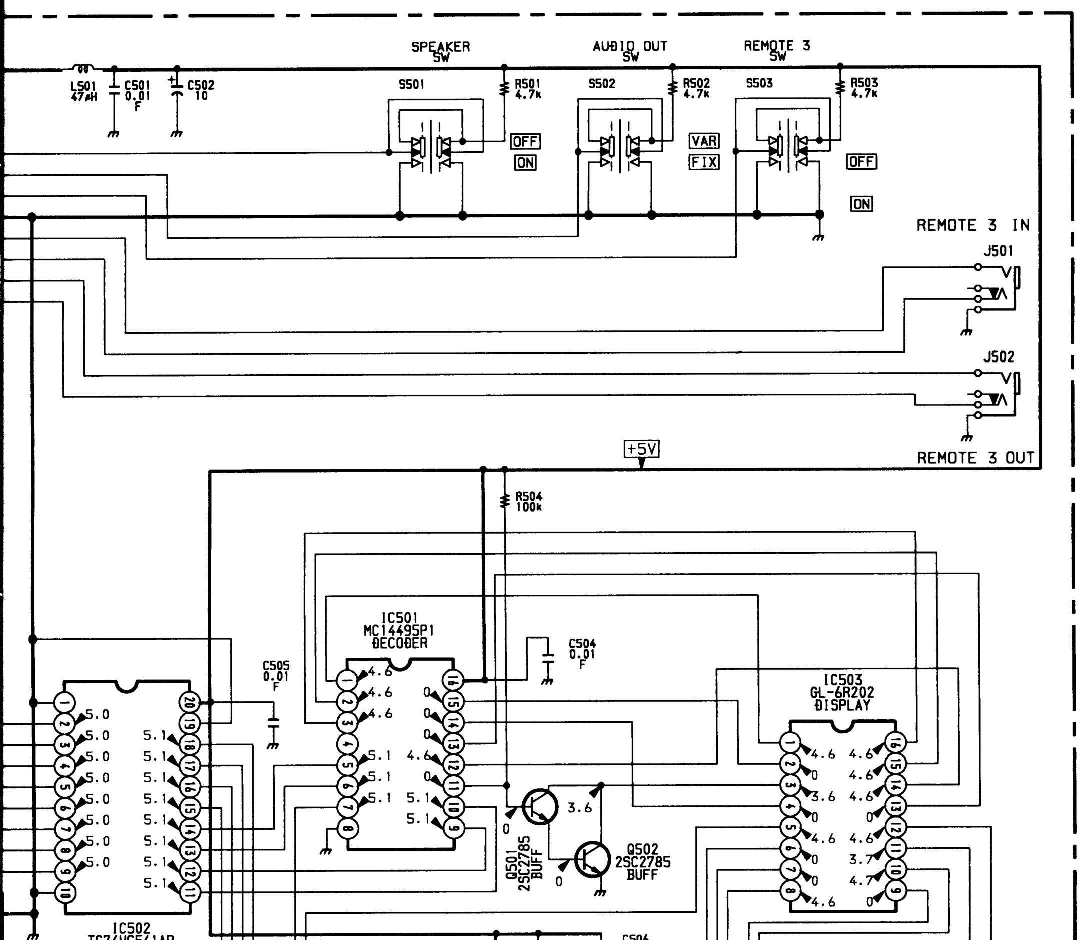

CN215
9P
RED-L
:S-MICRO
1 SUB +5V
2 SP.ON/OFF
3 VAR/NOT
4 RM3 /NOT
5 GND
6 RGB/VID.3
7 VID./YC.3
8 RGB/VID.0
9 VID./YC.0
TO AM BOARD CN17
SPEAKER SW
S501
OFF
ON
AUDIO O SW
S502
CN214
10P
WHT-L
:S-MICRO
1 D0
2 D1
3 D2
4 D3
5 D4
6 D5
7 D6
8 D7
9 LED WR
10 GND
TO BM BOARD CN40
IC502
TC74HC541AP
DECODER
IC501
MC14495P1
DECODER
IC504
MC14495P1
DECODER
Q501
2SC2785
BUFF
Q503
2SC2785
BUFF
+5V

K_B
(ERROR CODE DISPLAY)


19
20
21
22
23
24
25
26
27
28
29
CN211 64P
TO AM BOARD CN8
SP1
SP2
CN212 2P RED :S-MICRO
CN213 2P WHT :S-MICRO
R OUT
L OUT
GND
MUTE
VOL
SP.ON/OFF
AUDIO L
AUDIO R
AUDIO L (VAR)
AUDIO R (VAR)
POWER CONT
15.5V
20V
-20V
NC
TP501
TP502
TP503
Q505 2SB774 FILTER
D501 ERA22-06 +12V.PROT
IC501 NJM7812FA +12V.REG
D504 ERA22-06 PROT
D508 ERA22-06 HOLD
Q501 DTC144EK POWER-CONT
Q502 DTC144EK POWER-CONT
Q515 2SA1162 AUDIO-BUFF
D509 RD2.4M-T1B LEVEL SHIFT
Q516 2SC2712
Q512 DTC144EK AUDIO-SW
Q513 DTC144EK MUTE-SW
IC502 STK4122MK2 AUDIO-AMP
IC503 μPC1406HA AUDIO-ATT
Q503 2SA1162 AUDIO-AMP
Q504 2SC2712 AUDIO-BUFF
D503 RD13M-T1B2 PROT
D507 1S2837 DISCHARGE
Q508 2SC2712 AUDIO-BUFF
Q509 2SA1162 AUDIO-AMP
Q510 2SC2712 AUDIO-BUFF
Q511 2SC2712 AUDIO-BUFF
D506 RD13M-T1B2
+12V
-20V
+20V

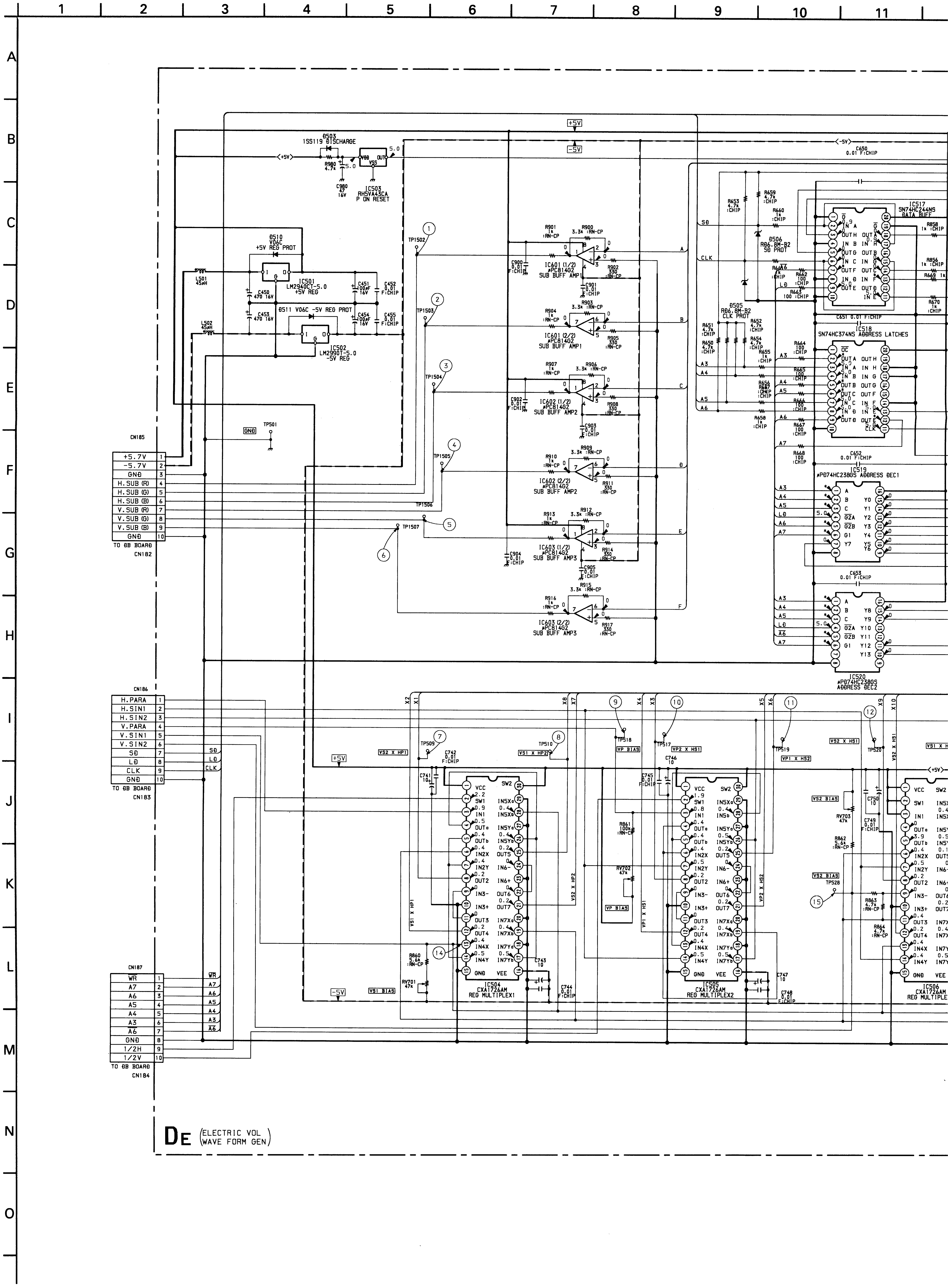
K A
(AUDIO)

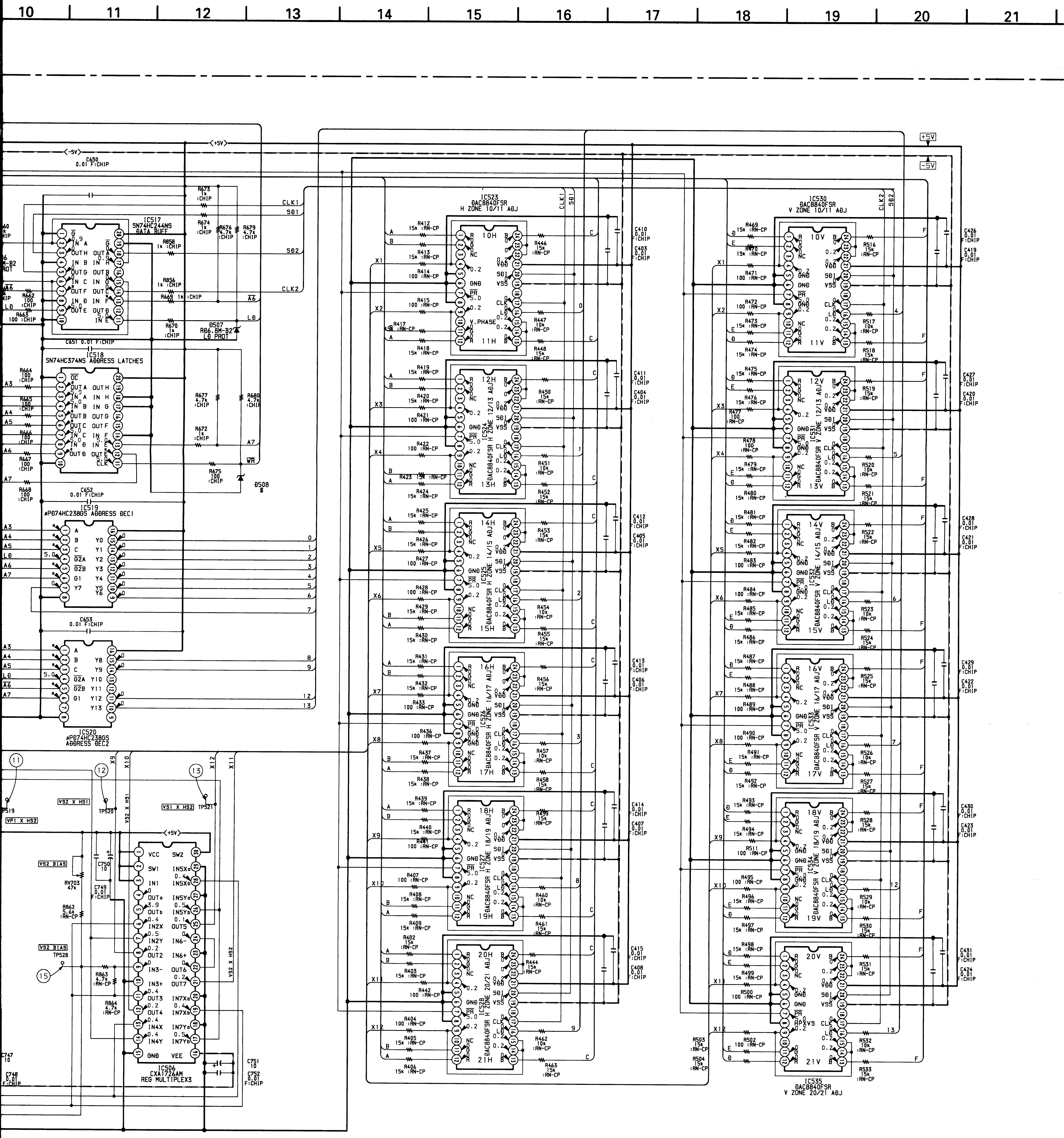
B-SS1542<AEP>-KA.

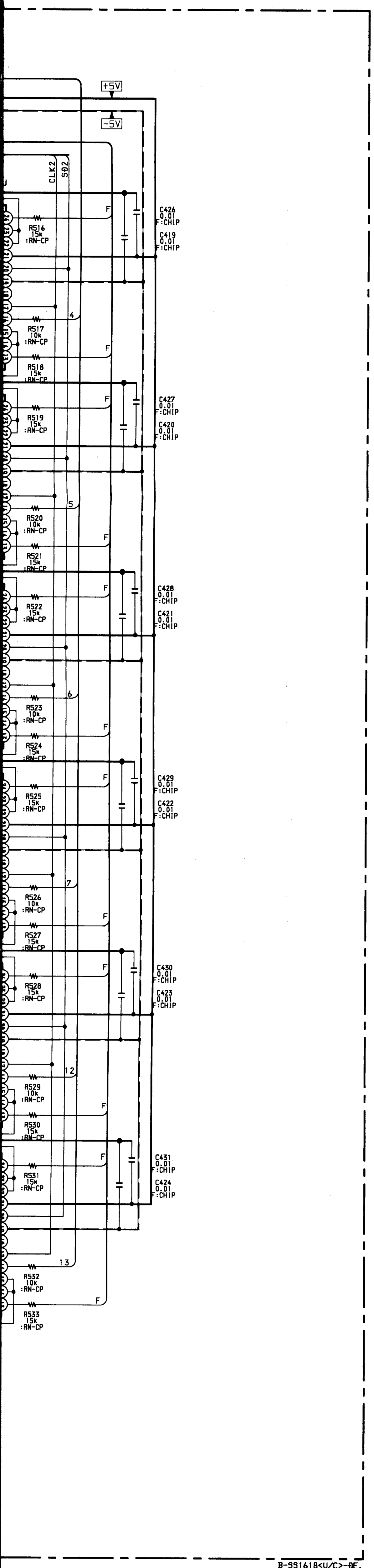

SPEAKER SW
AUDIO OUT SW
REMOTE 3 SW
S501
S502
S503
OFF
ON
VAR
FIX
REMOTE 3 IN
J501
J502
REMOTE 3 OUT
+5V
L501 47μH
IC501 MC14495P1 DECODER
IC502 TC74HC541AP DECODER
IC503 GL-6R202 DISPLAY
IC504 MC14495P1 DECODER
Q501 2SC2785 BUFF
Q502 2SC2785 BUFF
Q503 2SC2785 BUFF
Q504 2SC2785 BUFF

K B
(ERROR CODE DISPLAY)

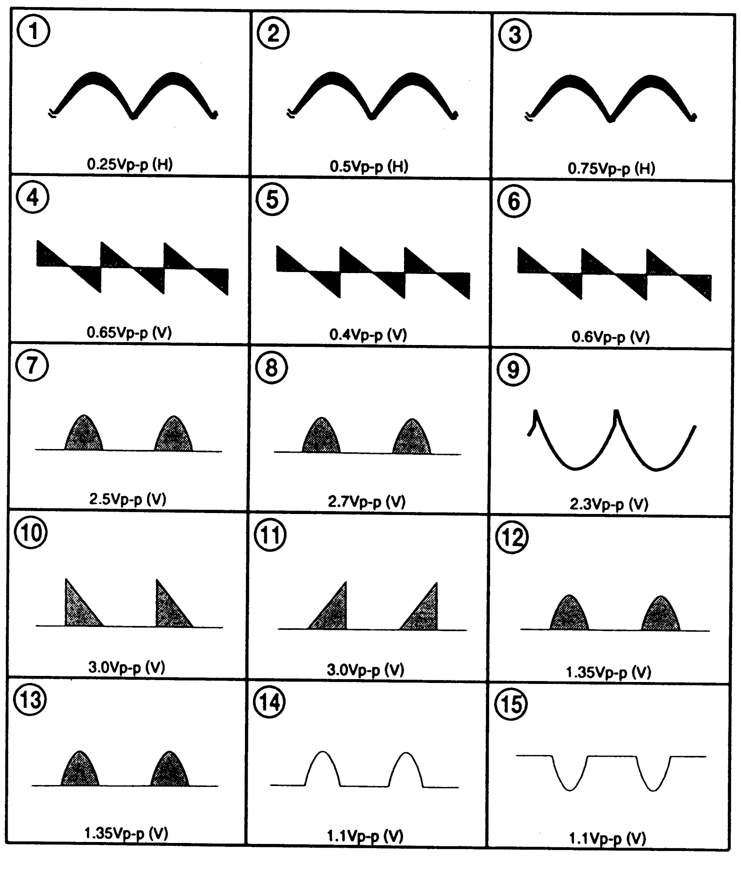
B-SS1542<AEP>-KB.

1
2
3
4
5
6
7
8
9
10
11
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
D503 1SS119 DISCHARGE
R980 4.7k
C980 47 16V
IC503 RH5VA43CA P ON RESET
(+5V)
+5V
-5V
(-5V)
C650 0.01 F:CHIP
D510 V06C +5V REG PROT
IC501 LM2940CT-5.0 +5V REG
L501 45μH
C450 470 16V
C451 100μF 16V
C452 0.01 F:CHIP
D511 V06C -5V REG PROT
L502 45μH
C453 470 16V
C454 100μF 16V
C455 0.01 F:CHIP
IC502 LM2990T-5.0 -5V REG
TP501
GND
CN185
+5.7V
-5.7V
GND
H.SUB (R)
H.SUB (G)
H.SUB (B)
V.SUB (R)
V.SUB (G)
V.SUB (B)
GND
TO DB BOARD CN182
TP1502
TP1503
TP1504
TP1505
TP1506
TP1507
IC601 (1/2) μPC814G2 SUB BUFF AMP1
IC601 (2/2) μPC814G2 SUB BUFF AMP1
IC602 (1/2) μPC814G2 SUB BUFF AMP2
IC602 (2/2) μPC814G2 SUB BUFF AMP2
IC603 (1/2) μPC814G2 SUB BUFF AMP3
IC603 (2/2) μPC814G2 SUB BUFF AMP3
R900 3.3k :RN-CP
R901 1k :RN-CP
R902 330 :RN-CP
C900 0.01 F:CHIP
C901 0.01 F:CHIP
R903 3.3k :RN-CP
R904 1k :RN-CP
R905 330 :RN-CP
R906 3.3k :RN-CP
R907 1k :RN-CP
R908 330 :RN-CP
C902 0.01 F:CHIP
C903 0.01 F:CHIP
R909 3.3k :RN-CP
R910 1k :RN-CP
R911 330 :RN-CP
R912 3.3k :RN-CP
R913 1k :RN-CP
R914 330 :RN-CP
C904 0.01 F:CHIP
C905 0.01 F:CHIP
R915 3.3k :RN-CP
R916 1k :RN-CP
R917 330 :RN-CP
A
B
C
D
E
F
SD
CLK
R653 4.7k :CHIP
R659 4.7k :CHIP
R660 1k :CHIP
D506 RD6.8M-B2 SD PROT
R661 1k :CHIP
R662 100 :CHIP
R663 100 :CHIP
LD
IC517 SN74HC244NS DATA BUFF
R858 1k :CHIP
R856 1k :CHIP
R669 1k
R670 1k :CHIP
C651 0.01 F:CHIP
D505 RD6.8M-B2 CLK PROT
R651 4.7k :CHIP
R650 4.7k :CHIP
R652 4.7k :CHIP
R654 4.7k :CHIP
R655 1k :CHIP
R656 1k :CHIP
R657 1k :CHIP
R658 1k :CHIP
R664 100 :CHIP
R665 100 :CHIP
R666 100 :CHIP
R667 100 :CHIP
R668 100 :CHIP
IC518 SN74HC374NS ADDRESS LATCHES
A3
A4
A5
A6
A7
C652 0.01 F:CHIP
IC519 μPD74HC238GS ADDRESS DEC1
C653 0.01 F:CHIP
IC520 μPD74HC238GS ADDRESS DEC2
CN186
H.PARA
H.SIN1
H.SIN2
V.PARA
V.SIN1
V.SIN2
SD
LD
CLK
GND
TO DB BOARD CN183
TP509
TP510
TP518
TP517
TP519
TP520
TP528
VS2 X HP1
VS1 X HP2
VP BIAS
VP2 X HS1
VS2 X HS1
VP1 X HS2
VS2 BIAS
VS1 BIAS
C741 10
C742 0.01 F:CHIP
C743 10
C744 0.01 F:CHIP
R860 5.6k :RN-CP
RV701 47k
IC504 CXA1726AM REG MULTIPLEX1
C745 0.01 F:CHIP
C746 10
R861 100k :RN-CP
RV702 47k
C747 10
C748 0.01 F:CHIP
IC505 CXA1726AM REG MULTIPLEX2
RV703 47k
R862 5.6k :RN-CP
C749 0.01 F:CHIP
C750 10
R863 4.7k :RN-CP
R864 4.7k :RN-CP
IC506 CXA1726AM REG MULTIPLE
VCC
SW1
IN1
OUTa
OUTb
IN2X
IN2Y
OUT2
IN3-
IN3+
OUT3
OUT4
IN4X
IN4Y
GND
SW2
IN5Xa
IN5Xb
IN5Ya
IN5Yb
OUT5
IN6-
IN6+
OUT6
OUT7
IN7Xa
IN7Xb
IN7Ya
IN7Yb
VEE
CN187
WR
A7
A6
A5
A4
A3
A6
GND
1/2H
1/2V
TO DB BOARD CN184
DE (ELECTRIC VOL WAVE FORM GEN)


10
11
12
13
14
15
16
17
18
19
20
21
IC517 SN74HC244NS DATA BUFF
IC518 SN74HC374NS ADDRESS LATCHES
IC519 μPD74HC238GS ADDRESS DEC1
IC520 μPD74HC238GS ADDRESS DEC2
IC506 CXA1726AM REG MULTIPLEX3
IC523 DAC8840FSR H ZONE 10/11 ADJ
IC524 DAC8840FSR H ZONE 12/13 ADJ
IC525 DAC8840FSR H ZONE 14/15 ADJ
IC526 DAC8840FSR H ZONE 16/17 ADJ
IC527 DAC8840FSR H ZONE 18/19 ADJ
IC528 DAC8840FSR H ZONE 20/21 ADJ
IC530 DAC8840FSR V ZONE 10/11 ADJ
IC531 DAC8840FSR V ZONE 12/13 ADJ
IC532 DAC8840FSR V ZONE 14/15 ADJ
IC533 DAC8840FSR V ZONE 16/17 ADJ
IC534 DAC8840FSR V ZONE 18/19 ADJ
IC535 DAC8840FSR V ZONE 20/21 ADJ
D507 RD6.8M-B2 LD PROT
D508
CLK1
SD1
SD2
CLK2
+5V
-5V
VS2 X HS1
VP1 X HS2
VS1 X HS2
VS2 BIAS
TP519
TP520
TP521
TP528
RV703 47k
X1
X2
X3
X4
X5
X6
X7
X8
X9
X10
X11
X12
10H
11H
12H
13H
14H
15H
16H
17H
18H
19H
20H
21H
10V
11V
12V
13V
14V
15V
16V
17V
18V
19V
20V
21V
V.PHASE
⑪
⑫
⑬
⑮


+5V
-5V
CLK2
S02
R516
15k
:RN-CP
C426
0.01
F:CHIP
C419
0.01
F:CHIP
4
R517
10k
:RN-CP
R518
15k
:RN-CP
C427
0.01
F:CHIP
C420
0.01
F:CHIP
R519
15k
:RN-CP
5
R520
10k
:RN-CP
R521
15k
:RN-CP
C428
0.01
F:CHIP
C421
0.01
F:CHIP
R522
15k
:RN-CP
6
R523
10k
:RN-CP
R524
15k
:RN-CP
C429
0.01
F:CHIP
C422
0.01
F:CHIP
R525
15k
:RN-CP
7
R526
10k
:RN-CP
R527
15k
:RN-CP
C430
0.01
F:CHIP
C423
0.01
F:CHIP
R528
15k
:RN-CP
12
R529
10k
:RN-CP
R530
15k
:RN-CP
C431
0.01
F:CHIP
C424
0.01
F:CHIP
R531
15k
:RN-CP
13
R532
10k
:RN-CP
R533
15k
:RN-CP
F
B-SS1618<U/C>-0E.

DE BOARD

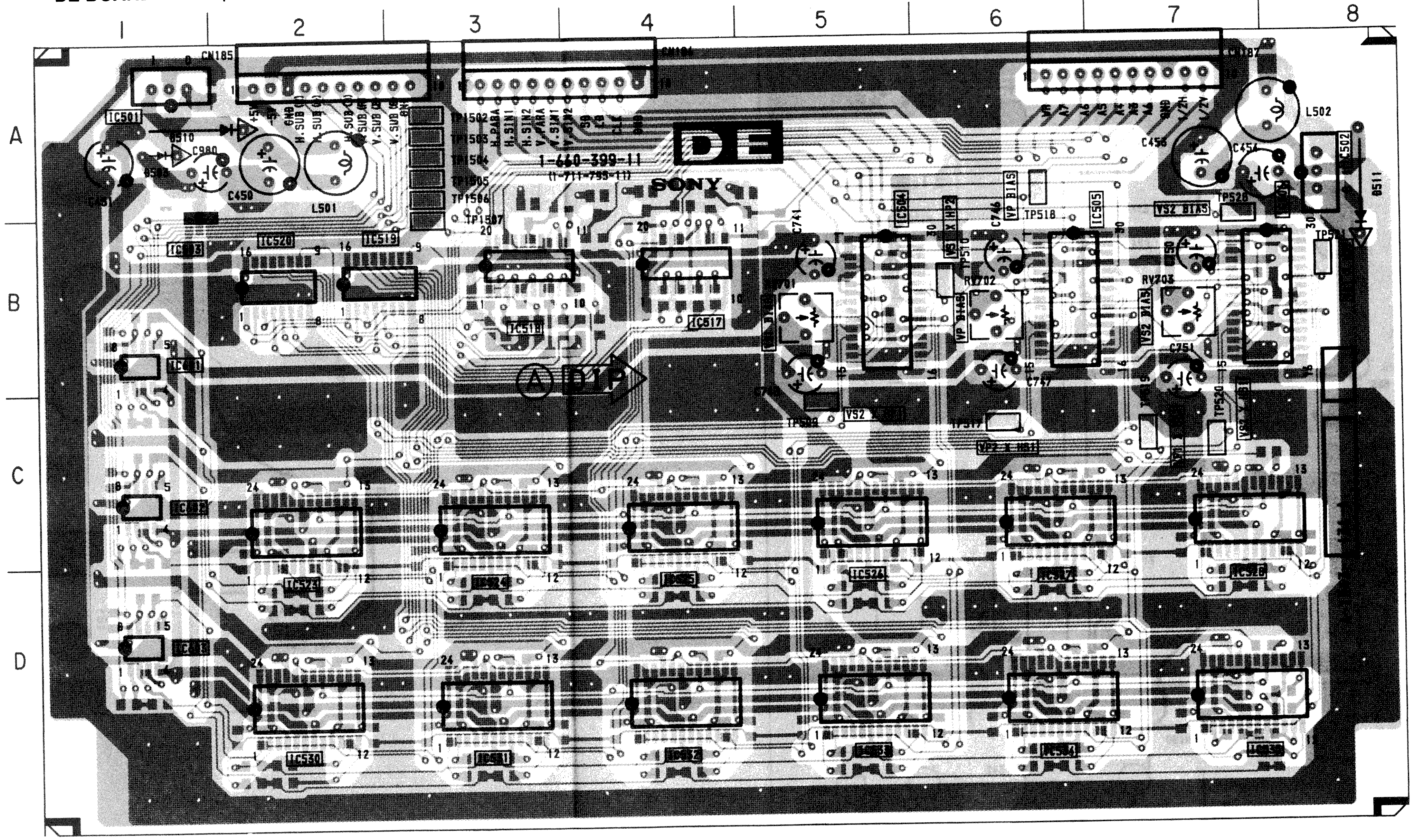

①
0.25Vp-p (H)
②
0.5Vp-p (H)
③
0.75Vp-p (H)
④
0.65Vp-p (V)
⑤
0.4Vp-p (V)
⑥
0.6Vp-p (V)
⑦
2.5Vp-p (V)
⑧
2.7Vp-p (V)
⑨
2.3Vp-p (V)
⑩
3.0Vp-p (V)
⑪
3.0Vp-p (V)
⑫
1.35Vp-p (V)
⑬
1.35Vp-p (V)
⑭
1.1Vp-p (V)
⑮
1.1Vp-p (V)

DE [ELECTRONIC VR (RESISTRATION ADJ)]

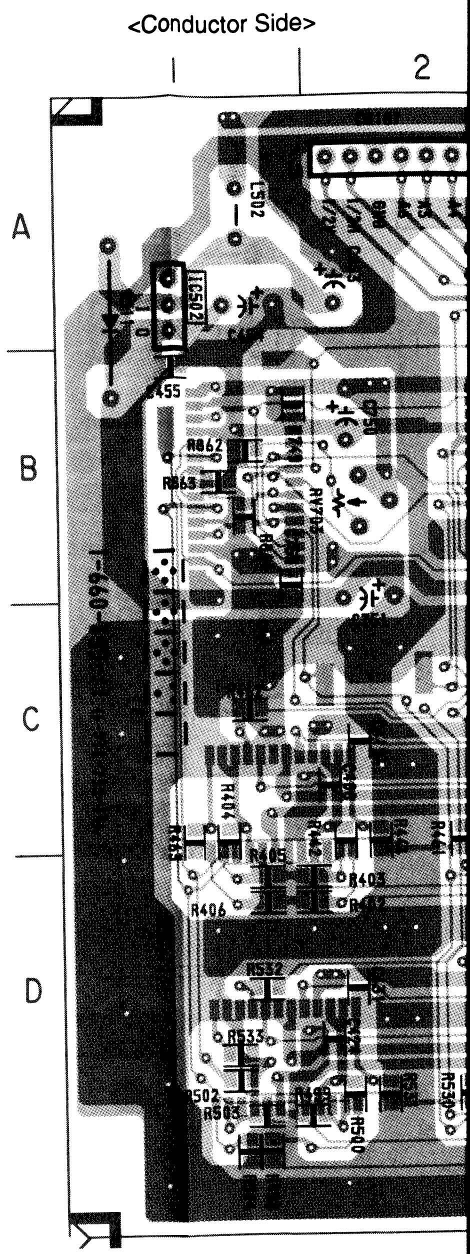
**DE BOARD
(COMPONENT SIDE)**

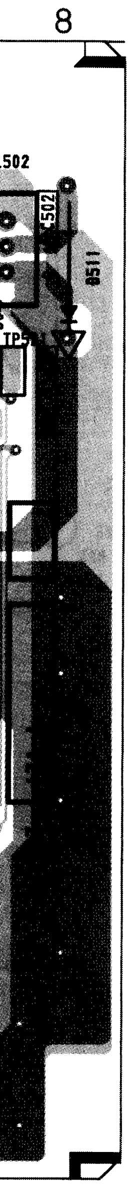
IC	
IC501	A-1
IC502	A-8
IC503	A-1
IC504	B-5
IC505	B-6
IC506	B-8
IC517	B-4
IC518	B-3
IC519	B-2
IC520	B-2
IC523	C-2
IC524	C-3
IC525	C-4
IC526	C-5
IC527	C-6
IC528	C-7
IC530	D-2
IC531	D-3
IC532	D-4
IC533	D-5
IC534	D-6
IC535	D-7
IC601	B-1
IC602	C-1
IC603	D-1
DIODE	
D503	A-1
D510	A-1
D511	A-8
VARIABLE RESISTOR	
RV701	B-5
RV702	B-6
RV703	B-7
TEST POINT	
TP509	C-5
TP510	B-6
TP517	C-6
TP518	B-6
TP519	C-7
TP520	C-7
TP521	B-8
TP528	A-7
TP1502	A-3
TP1503	A-3
TP1504	A-3
TP1505	A-3
TP1506	A-3
TP1507	A-3

– DE BOARD – <Component Side>

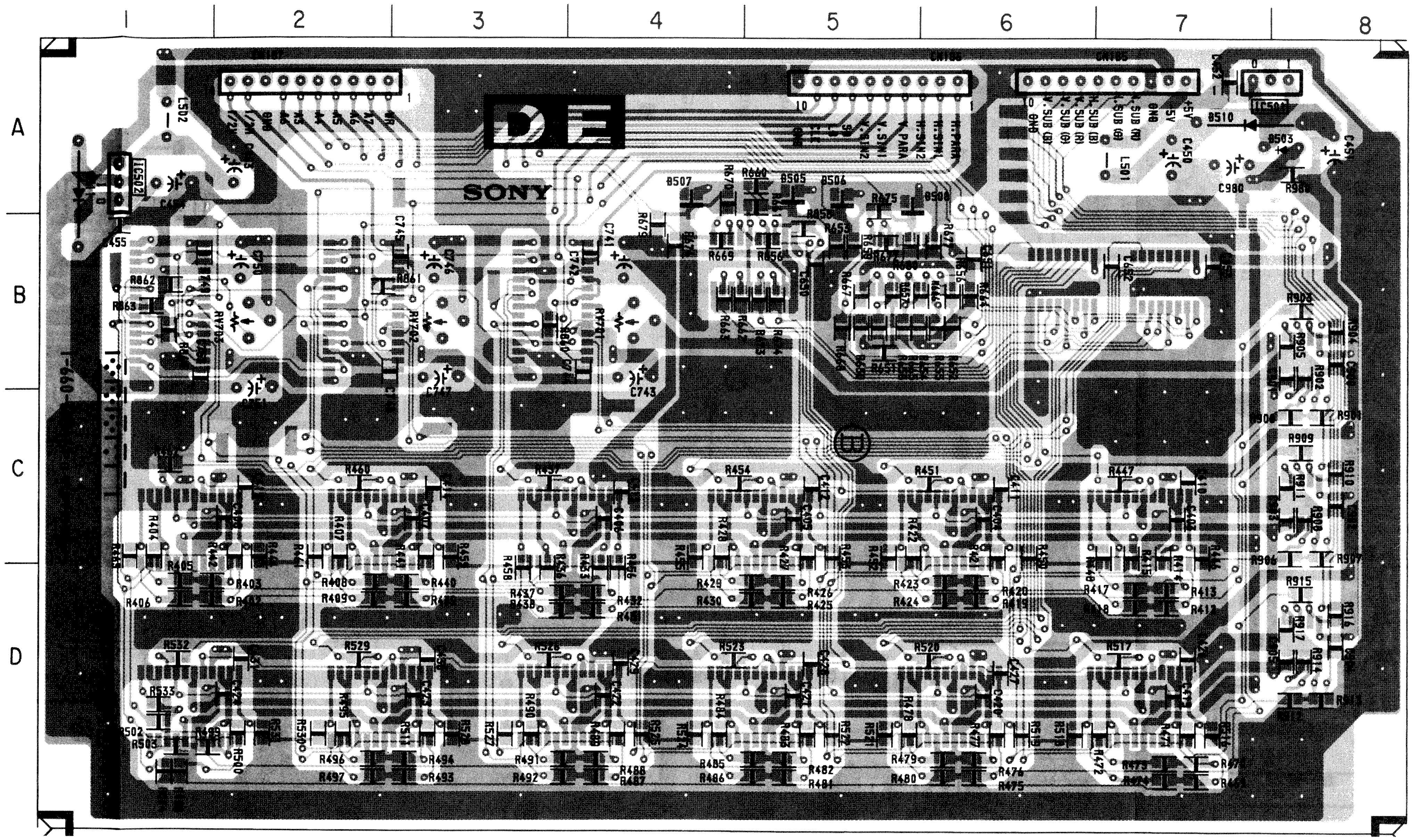

1
2
3
4
5
6
7
8
A
B
C
D
CN185
CN184
CN187
IC501
D510
D503
C980
C451
C450
L501
TP1502
TP1503
TP1504
TP1505
TP1506
TP1507
1-660-399-11
(1-711-795-11)
DE
SONY
IC520
IC519
IC518
IC517
IC504
IC505
IC506
L502
C456
C454
IC502
D511
TP528
TP518
TP521
RV701
RV702
RV703
C741
C746
C751
C757
TP509
TP517
TP520
A DIP
IC601
IC602
IC603
IC523
IC524
IC525
IC526
IC527
IC528
IC530
IC531
IC532
IC533
IC534
IC535

<Conductor Side>


1
2
A
B
C
D
L502
R862
R863
RV702
R404
R405
R406
R403
R532
R533
R502
R503
R500
-660-


8
IC502
D511
TP501

<Conductor Side>


1
2
3
4
5
6
7
8
A
B
C
D
DE
SONY
IC502
IC501
L502
L501
D505
D506
D507
D508
D510
D511
RV701
RV702
RV703
C741
C742
C743
C745
C746
C747
C750
C980
R404
R405
R406
R407
R408
R409
R447
R451
R454
R457
R460
R517
R520
R523
R526
R529
R532
R909
R915

DE BOARD (CONDUCTOR SIDE)

IC	
IC501	A-8
IC502	A-1
DIODE	
D505	A-5
D506	A-6
D507	A-4
D508	A-5
D510	A-7
D511	A-1
VARIABLE RESISTOR	
RV701	B-4
RV702	B-3
RV703	B-2

- ▨ : Pattern from the side which enables seeing.
- ▨ : Pattern of the rear side.

PA

[HIGH VOLTAGE REG]

PA BOARD

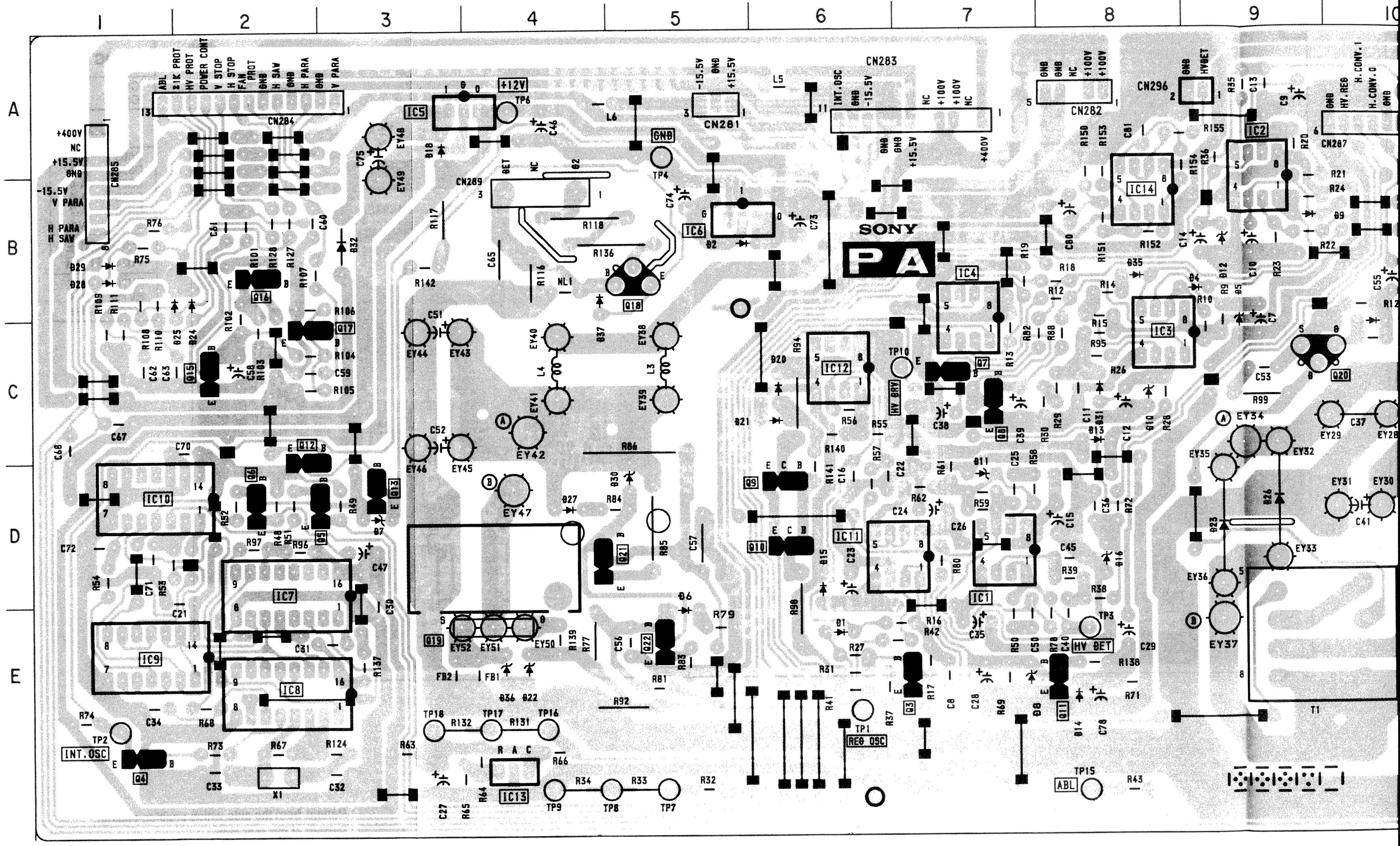
IC	
IC1	D-7
IC2	A-9
IC3	C-8
IC4	B-7
IC5	A-3
IC6	B-5
IC7	D-2
IC8	E-2
IC9	E-1
IC10	D-1
IC11	D-6
IC12	C-6
IC13	E-4
IC14	B-8

TRANSISTOR	
Q1	B-13
Q2	A-13
Q3	E-7
Q4	E-1
Q5	D-2
Q6	D-2
Q7	C-7
Q8	C-7
Q9	D-6
Q10	D-6
Q11	E-8
Q12	C-2
Q13	D-3
Q15	C-2
Q16	B-2
Q17	C-3
Q18	B-5
Q19	E-3
Q20	C-10
Q21	D-4
Q22	E-5

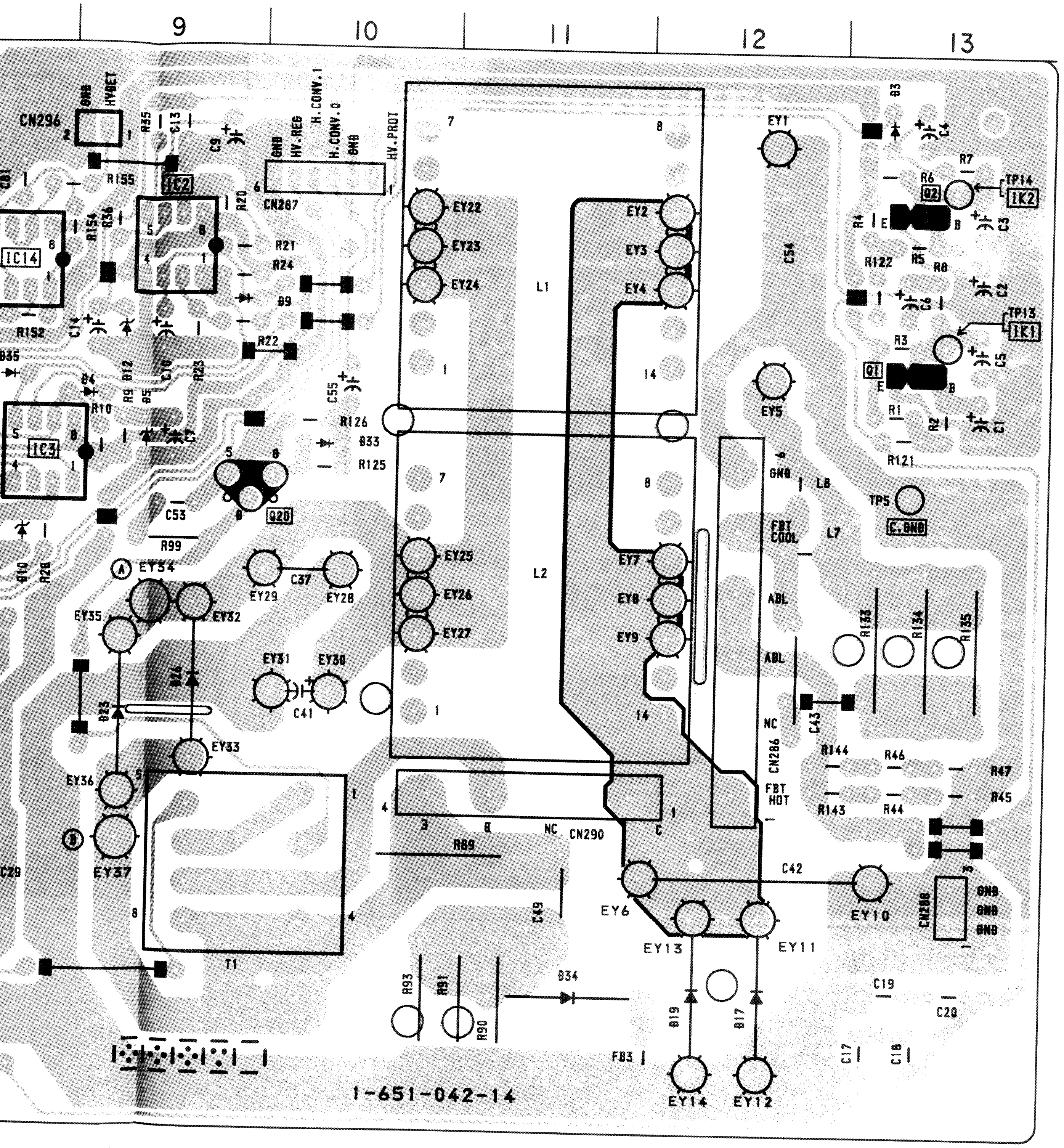
DIODE	
D1	E-6
D2	B-5
D3	A-13
D4	B-9
D5	B-9
D6	D-5
D7	D-3
D8	E-7
D9	B-9
D10	C-8
D11	D-7
D12	B-9
D13	C-8
D14	E-8
D15	D-6
D16	D-8
D17	E-12
D18	A-3
D19	E-12
D20	C-6
D21	C-6
D22	E-4
D23	D-9
D24	B-2
D25	B-2
D26	D-9
D27	D-4
D28	B-1
D29	B-1
D30	D-5
D31	C-8
D32	B-3
D33	C-10
D34	E-11
D35	B-8
D36	E-4
D37	B-4

TEST POINT	
TP1	E-6
TP2	E-1
TP3	E-8
TP4	A-5
TP5	C-13
TP6	A-4
TP7	E-5
TP8	E-5
TP9	E-4
TP10	C-7
TP13	B-13
TP14	A-13
TP15	E-8
TP16	E-4
TP17	E-4
TP18	E-3

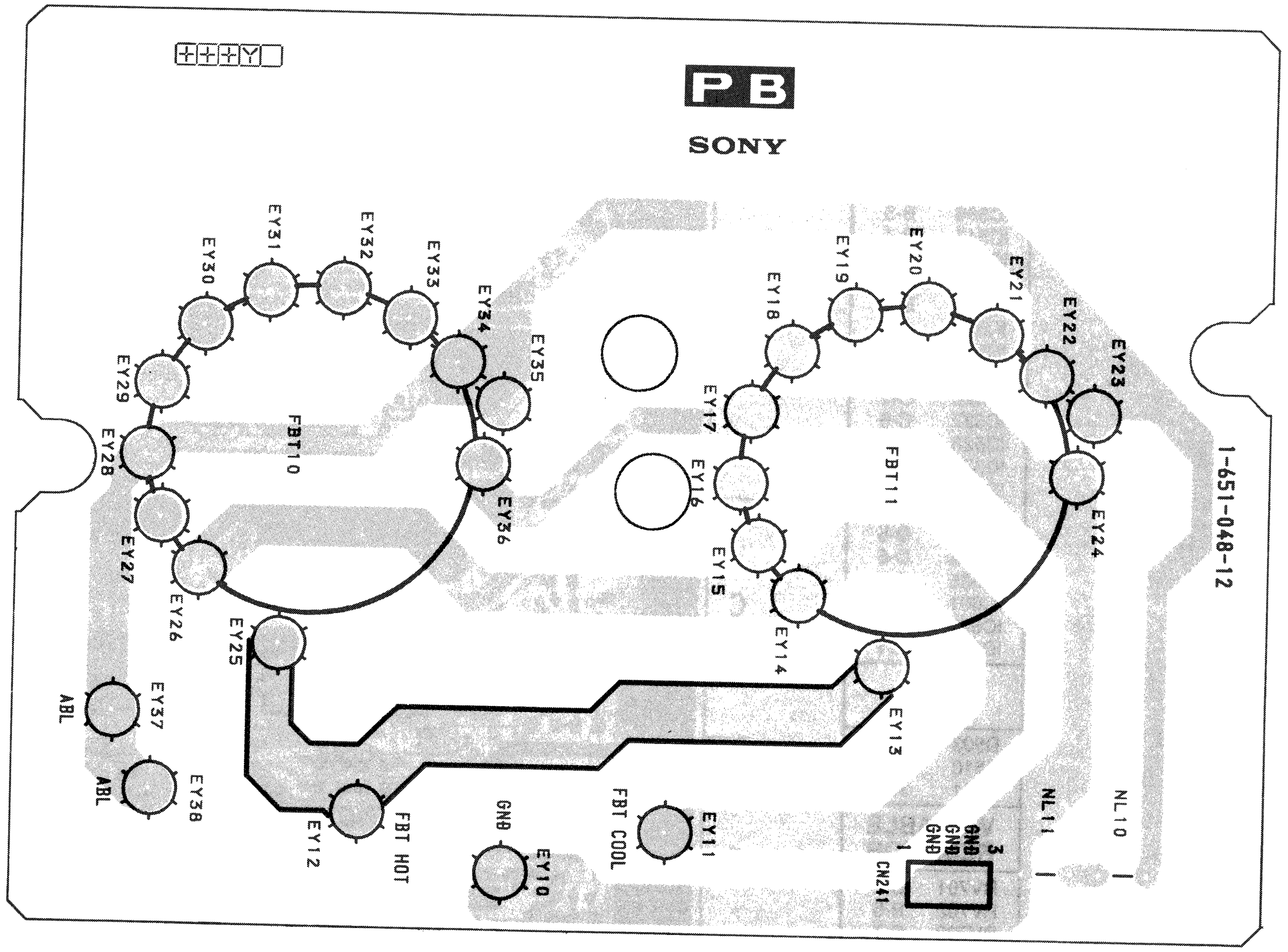
– PA BOARD –


1
2
3
4
5
6
7
8
9
A
B
C
D
E
SONY
PA
CN284
CN285
CN289
CN283
CN281
CN282
CN296
CN287
ABL
X1K PROT
HV PROT
POWER CONT
V STOP
H STOP
FAN
PROT
GND
H SAV
H PARA
V PARA
+400V
NC
+15.5V
GND
-15.5V
+12V
INT.OSC
+100V
HVDET
HV.REG
H.CONV.1
H.CONV.0
IC1
IC2
IC3
IC4
IC5
IC6
IC7
IC8
IC9
IC10
IC11
IC12
IC13
IC14
Q18
Q20
EY37
T1
TP1
REG OSC
HV BRV
HV DET
INT.OSC
ABL
TP15

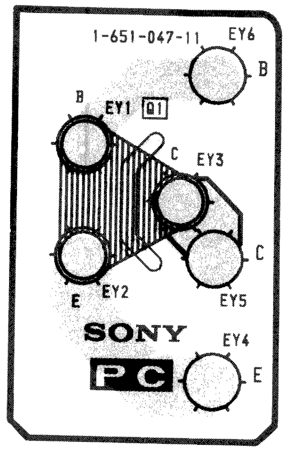
PB [FBT] **PC**

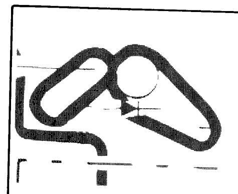

9
10
11
12
13
CN296
HVGET
IC2
IC14
IC3
CN287
GND
HV.REG
H.CONV.1
H.CONV.0
HV.PROT
L1
L2
EY1
EY2
EY3
EY4
EY5
EY6
EY7
EY8
EY9
EY10
EY11
EY12
EY13
EY14
EY22
EY23
EY24
EY25
EY26
EY27
EY28
EY29
EY30
EY31
EY32
EY33
EY34
EY35
EY36
EY37
Q1
Q2
Q20
TP5
C.GND
TP13
IK1
TP14
IK2
FBT COOL
FBT HOT
ABL
NC
CN286
CN288
CN290
T1
L7
L8
1-651-042-14

- PB BOARD -

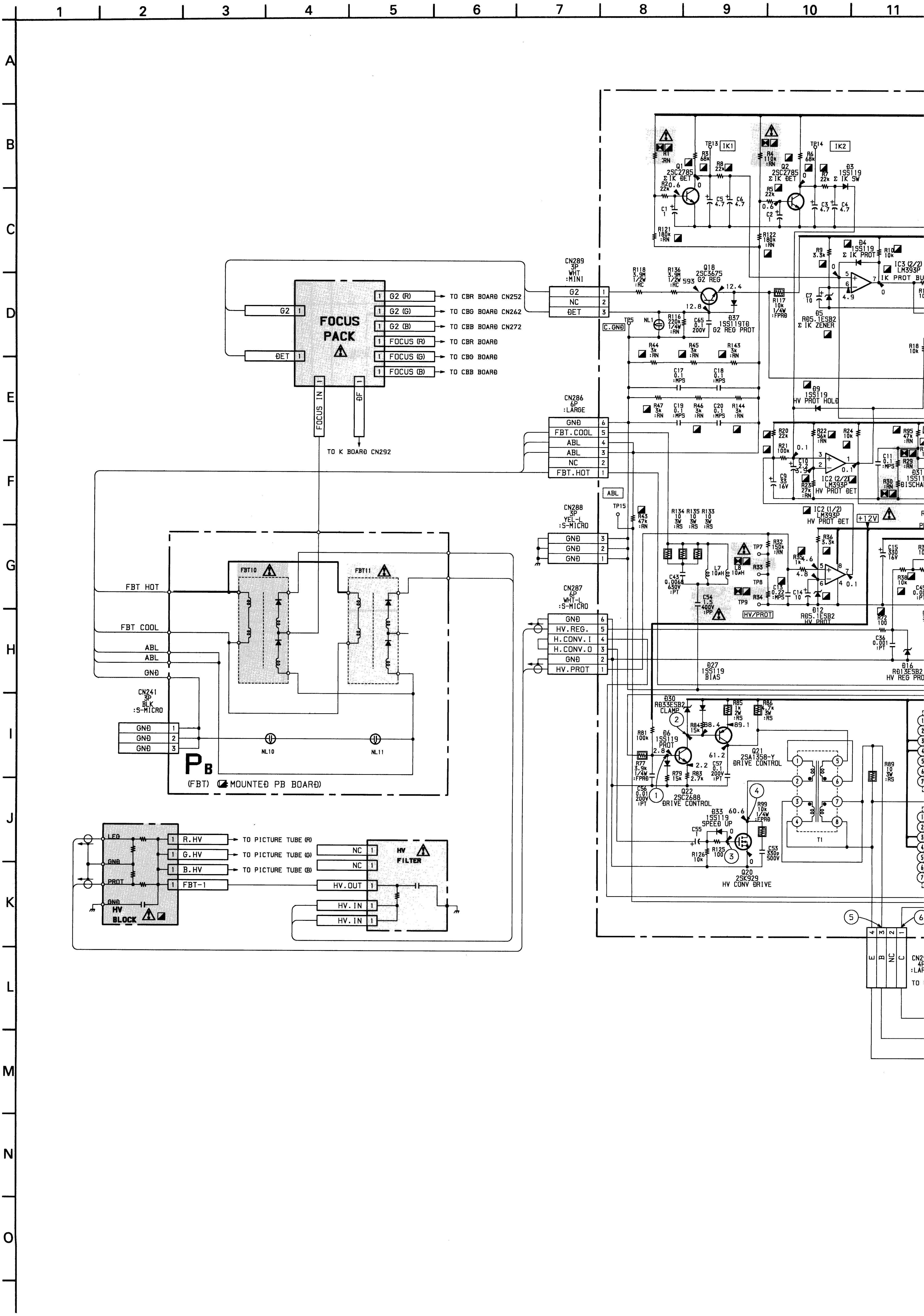

PB
SONY
FBT10
FBT11
EY11
EY12
EY13
EY14
EY15
EY16
EY17
EY18
EY19
EY20
EY21
EY22
EY23
EY24
EY25
EY26
EY27
EY28
EY29
EY30
EY31
EY32
EY33
EY34
EY35
EY36
EY37
EY38
EY10
ABL
ABL
FBT HOT
FBT COOL
GND
GND
GND
GND
CN241
NL11
NL10
1-651-048-12

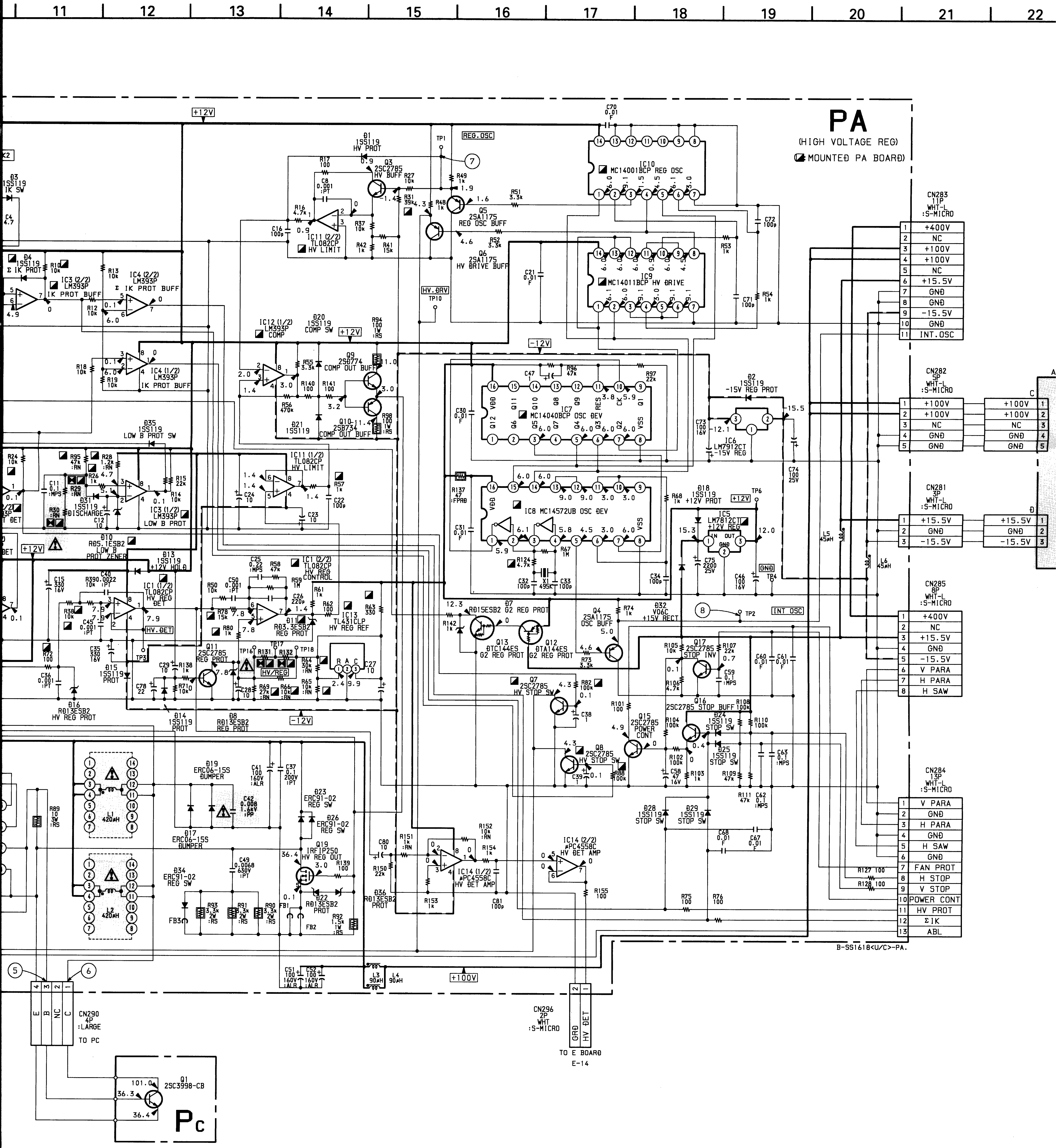
- PC BOARD -


1-651-047-11
EY6
B
B
EY1
Q1
C
EY3
C
E
EY2
EY5
SONY
EY4
PC
E



NOTE:
The circuit indicated as left contains high voltage of over 600 Vp-p. Care must be paid to prevent an electric shock in inspection or repairing.


FOCUS PACK
G2
DET
G2 (R)
G2 (G)
G2 (B)
FOCUS (R)
FOCUS (G)
FOCUS (B)
TO CBR BOARD CN252
TO CBG BOARD CN262
TO CBB BOARD CN272
TO CBR BOARD
TO CBG BOARD
TO CBB BOARD
FOCUS IN
DF
TO K BOARD CN292
CN289 3P WHT :MINI
G2
NC
DET
CN286 6P :LARGE
GND
FBT.COOL
ABL
ABL
NC
FBT.HOT
CN288 3P YEL-L :S-MICRO
GND
CN287 6P WHT-L :S-MICRO
GND
HV.REG.
H.CONV.I
H.CONV.O
GND
HV.PROT
FBT10
FBT11
FBT HOT
FBT COOL
ABL
GND
CN241 3P BLK :S-MICRO
NL10
NL11
PB
(FBT) MOUNTED PB BOARD)
LEG
GND
PROT
HV BLOCK
R.HV
G.HV
B.HV
FBT-1
TO PICTURE TUBE (R)
TO PICTURE TUBE (G)
TO PICTURE TUBE (B)
NC
HV.OUT
HV.IN
HV FILTER
Q1 2SC2785 Σ IK DET
Q2 2SC2785 Σ IK DET
D3 1SS119 Σ IK SW
IK1
IK2
Q18 2SC3675 G2 REG
D37 1SS119TD G2 REG PROT
C.GND
D4 1SS119 Σ IK PROT
IC3 (2/2) LM393P IK PROT BUF
D5 RD5.1ESB2 Σ IK ZENER
D9 1SS119 HV PROT HOLD
IC2 (2/2) LM393P HV PROT DET
IC2 (1/2) LM393P HV PROT DET
D12 RD5.1ESB2 HV PROT
HV/PROT
+12V
D27 1SS119 BIAS
D16 RD13ESB2 HV REG PROT
D30 RD33ESB2 CLAMP
D6 1SS119 PROT
Q21 2SA1358-Y DRIVE CONTROL
Q22 2SC2688 DRIVE CONTROL
D33 1SS119 SPEED UP
Q20 2SK929 HV CONV DRIVE
T1
1
2
3
4
5
6
7
8
9
10
11
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O


11
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14
15
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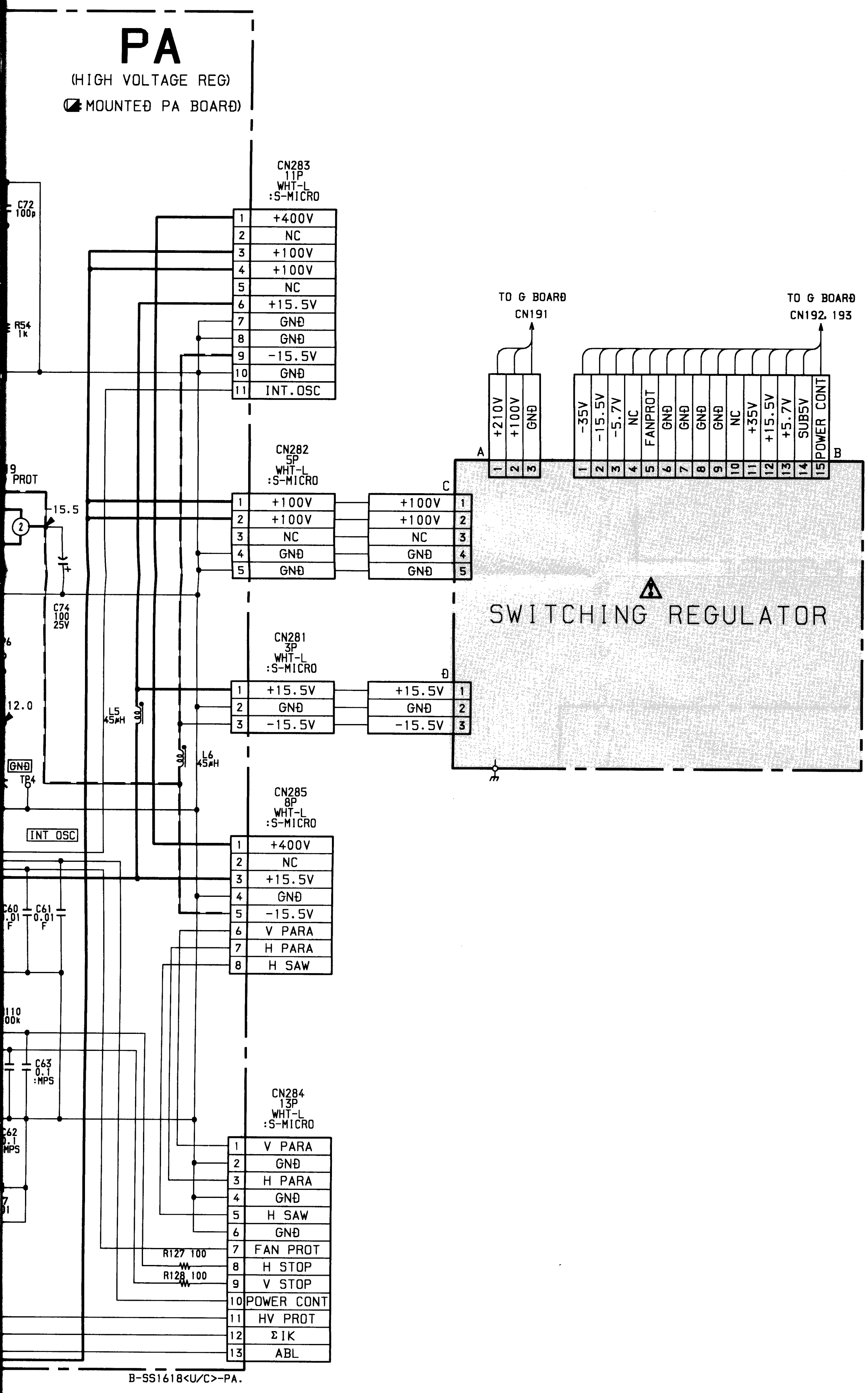
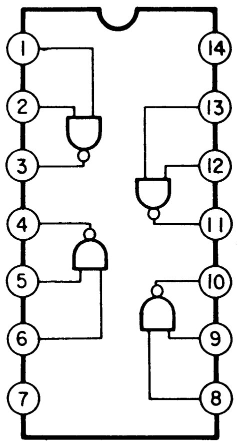
17
18
19
20
21
22
PA
(HIGH VOLTAGE REG)
MOUNTED PA BOARD)
IC10 MC14001BCP REG OSC
IC9 MC14011BCP HV DRIVE
IC7 MC14040BCP OSC DEV
IC8 MC14572UB OSC DEV
IC6 LM7912CT -15V REG
IC5 LM7812CT +12V REG
IC11 (1/2) TL082CP HV LIMIT
IC11 (2/2) TL082CP HV LIMIT
IC12 (1/2) LM393P COMP
IC3 (1/2) LM393P LOW B PROT
IC3 (2/2) LM393P IK PROT BUFF
IC4 (1/2) LM393P IK PROT BUFF
IC4 (2/2) LM393P Σ IK PROT BUFF
IC1 (1/2) TL082CP HV REG DET
IC1 (2/2) TL082CP HV REG CONTROL
IC13 TL431CLP HV REG REF
IC14 (1/2) μPC4558C HV DET AMP
IC14 (2/2) μPC4558C HV DET AMP
Q3 2SC2785 HV BUFF
Q5 2SA1175 REG OSC BUFF
Q6 2SA1175 HV DRIVE BUFF
Q9 2SD774 COMP OUT BUFF
Q10 2SB734 COMP OUT BUFF
Q11 2SC2785 REG PROT
Q19 IRF1P250 HV REG OUT
Q13 DTC144ES G2 REG PROT
Q12 DTA144ES G2 REG PROT
Q4 2SA1175 OSC BUFF
Q17 2SC2785 STOP INV
Q16 2SC2785 STOP BUFF
Q15 2SC2785 POWER CONT
Q7 2SC2785 HV STOP SW
Q8 2SC2785 HV STOP SW
D1 1SS119 HV PROT
D2 1SS119 -15V REG PROT
D3 1SS119 IK SW
D4 1SS119 Σ IK PROT
D7 RD15ESB2 G2 REG PROT
D8 RD13ESB2 REG PROT
D10 RD5.1ESB2 LOW B PROT ZENER
D11 RD3.3ESB2 REG PROT
D13 1SS119 +12V HOLD
D14 1SS119 PROT
D15 1SS119 PROT
D16 RD13ESB2 HV REG PROT
D17 ERC06-15S DUMPER
D18 1SS119 +12V PROT
D19 ERC06-15S DUMPER
D20 1SS119 COMP SW
D21 1SS119
D22 RD13ESB2 PROT
D23 ERC91-02 REG SW
D24 1SS119 STOP SW
D25 1SS119 STOP SW
D26 ERC91-02 REG SW
D28 1SS119 STOP SW
D29 1SS119 STOP SW
D31 1SS119 DISCHARGE
D32 V06C +15V RECT
D34 ERC91-02 REG SW
D35 1SS119 LOW B PROT SW
D36 RD13ESB2 PROT
L1 420μH
L2 420μH
L3 90μH
L4 90μH
L5 45μH
L6 45μH
X1 495K
REG.OSC
HV.DRV
HV.DET
HV/REG
INT OSC
GND
+12V
-12V
+100V
TP1
TP2
TP3
TP4
TP6
TP10
TP16
TP17
TP18
CN283 11P WHT-L :S-MICRO
1 +400V
2 NC
3 +100V
4 +100V
5 NC
6 +15.5V
7 GND
8 GND
9 -15.5V
10 GND
11 INT.OSC
CN282 5P WHT-L :S-MICRO
1 +100V
2 +100V
3 NC
4 GND
5 GND
CN281 3P WHT-L :S-MICRO
1 +15.5V
2 GND
3 -15.5V
CN285 8P WHT-L :S-MICRO
1 +400V
2 NC
3 +15.5V
4 GND
5 -15.5V
6 V PARA
7 H PARA
8 H SAW
CN284 13P WHT-L :S-MICRO
1 V PARA
2 GND
3 H PARA
4 GND
5 H SAW
6 GND
7 FAN PROT
8 H STOP
9 V STOP
10 POWER CONT
11 HV PROT
12 ΣIK
13 ABL
CN296 2P WHT :S-MICRO
GND
HV DET
TO E BOARD E-14
CN290 4P :LARGE TO PC
E
B
NC
C
Pc
Q1 2SC3998-CB
101.0
36.3
36.4
B-SS1618<U/C>-PA.


PA
(HIGH VOLTAGE REG)
MOUNTED PA BOARD)
CN283 11P WHT-L :S-MICRO
1 +400V
2 NC
3 +100V
4 +100V
5 NC
6 +15.5V
7 GND
8 GND
9 -15.5V
10 GND
11 INT.OSC
CN282 5P WHT-L :S-MICRO
1 +100V
2 +100V
3 NC
4 GND
5 GND
CN281 3P WHT-L :S-MICRO
1 +15.5V
2 GND
3 -15.5V
CN285 8P WHT-L :S-MICRO
1 +400V
2 NC
3 +15.5V
4 GND
5 -15.5V
6 V PARA
7 H PARA
8 H SAW
CN284 13P WHT-L :S-MICRO
1 V PARA
2 GND
3 H PARA
4 GND
5 H SAW
6 GND
7 FAN PROT
8 H STOP
9 V STOP
10 POWER CONT
11 HV PROT
12 ΣIK
13 ABL
R127 100
R128 100
B-SS1618<U/C>-PA.
TO G BOARD CN191
TO G BOARD CN192, 193
A
+210V
+100V
GND
B
-35V
-15.5V
-5.7V
NC
FANPROT
GND
GND
GND
NC
+35V
+15.5V
+5.7V
SUB5V
POWER CONT
C
+100V
+100V
NC
GND
GND
D
+15.5V
GND
-15.5V
SWITCHING REGULATOR
C72 100p
R54 1k
9 PROT
15.5
C74 100 25V
12.0
L5 45μH
L6 45μH
GND
TB4
INT OSC
C60 0.01
C61 0.01
110 00k
C63 0.1 :MPS
C62 0.1 MPS

PA BOARD IC9 MC14011BCP


1
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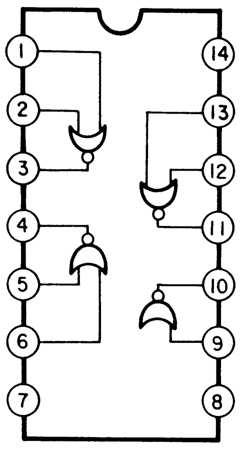
14

PA BOARD IC10 MC14001BCP


1
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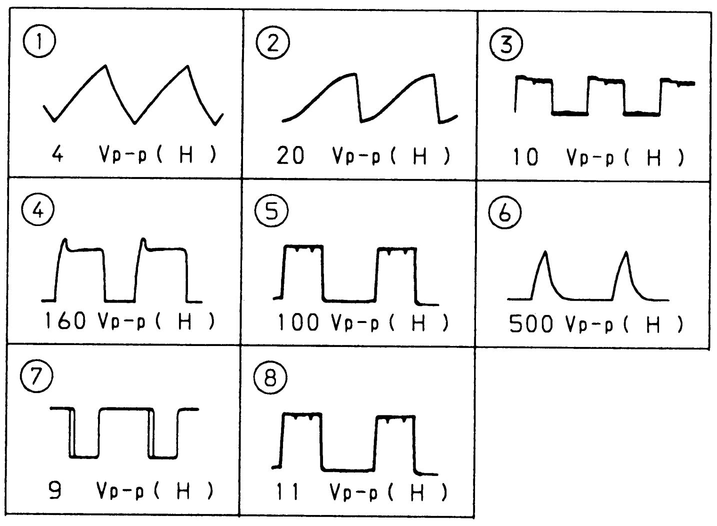
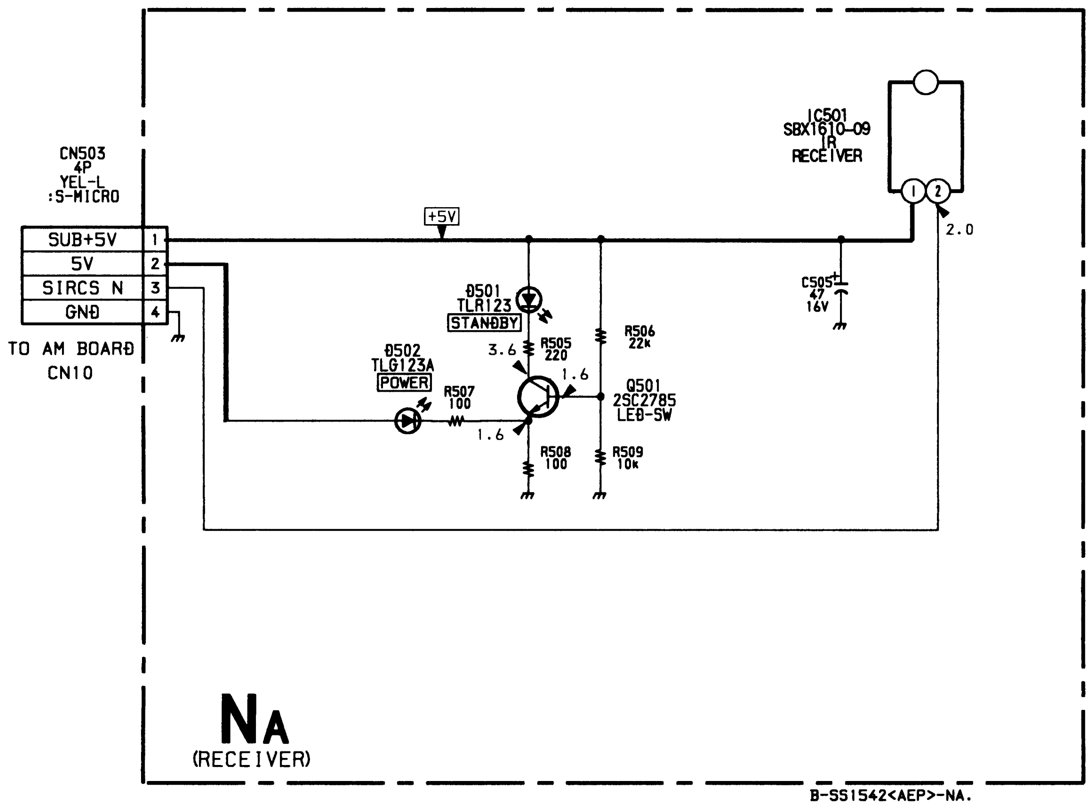
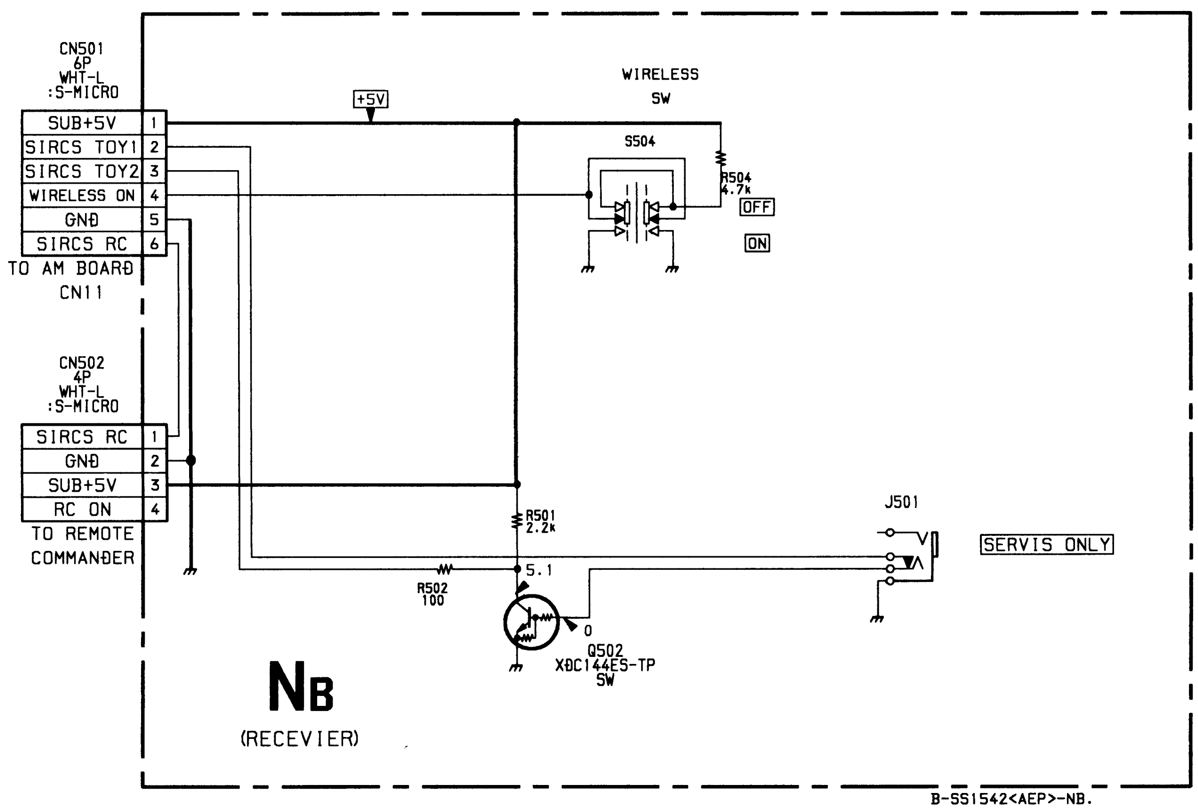
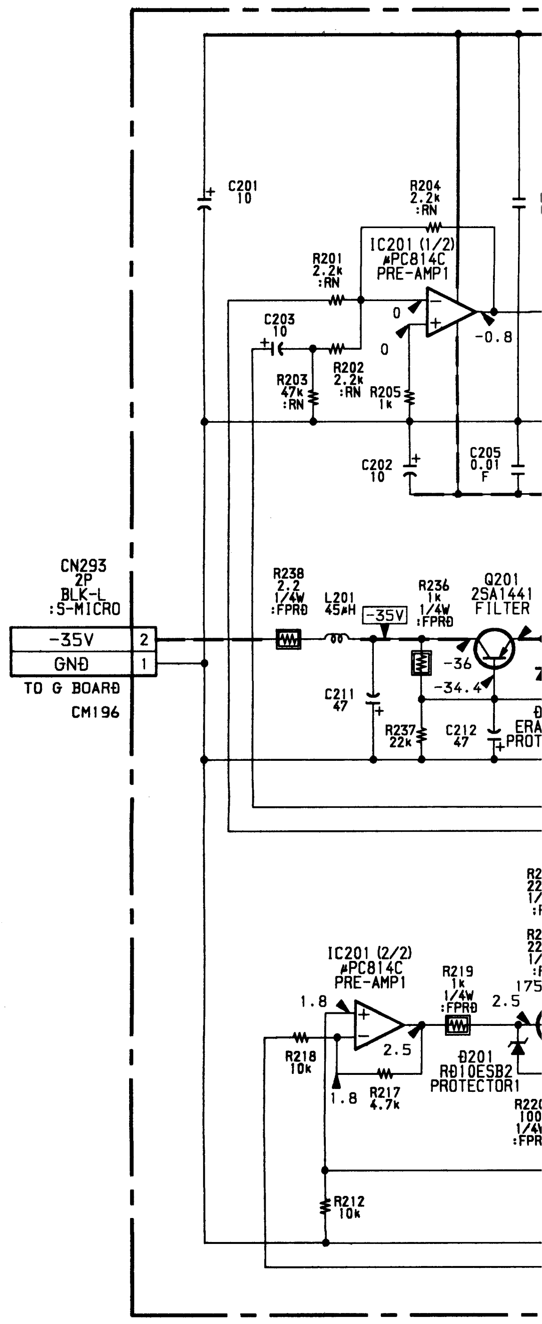
10
11
12
13
14

PA BOARD

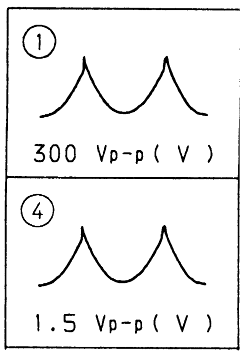


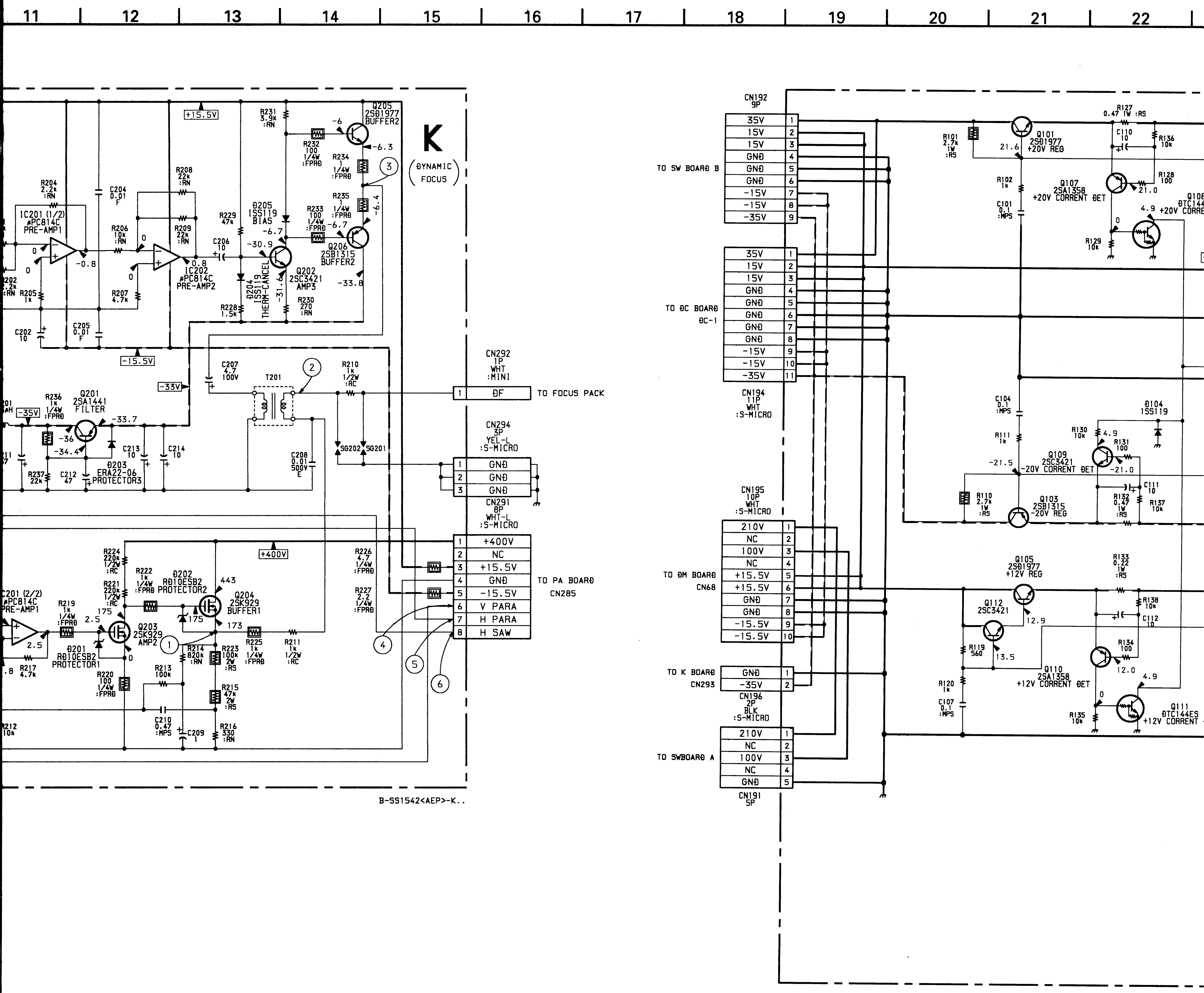

CN503
4P
YEL-L
:S-MICRO
SUB+5V 1
5V 2
SIRCS N 3
GND 4
TO AM BOARD
CN10
+5V
IC501
SBX1610-09
IR
RECEIVER
2.0
C505
47
16V
D501
TLR123
STANDBY
D502
TLG123A
POWER
R505
220
R506
22k
3.6
1.6
R507
100
1.6
Q501
2SC2785
LED-SW
R508
100
R509
10k
NA
(RECEIVER)
B-SS1542<AEP>-NA.


CN501
6P
WHT-L
:S-MICRO
SUB+5V 1
SIRCS TOY1 2
SIRCS TOY2 3
WIRELESS ON 4
GND 5
SIRCS RC 6
TO AM BOARD
CN11
+5V
WIRELESS
SW
S504
R504
4.7k
OFF
ON
CN502
4P
WHT-L
:S-MICRO
SIRCS RC 1
GND 2
SUB+5V 3
RC ON 4
TO REMOTE
COMMANDER
R501
2.2k
J501
SERVIS ONLY
R502
100
5.1
0
Q502
XDC144ES-TP
SW
NB
(RECEVIER)
B-SS1542<AEP>-NB.

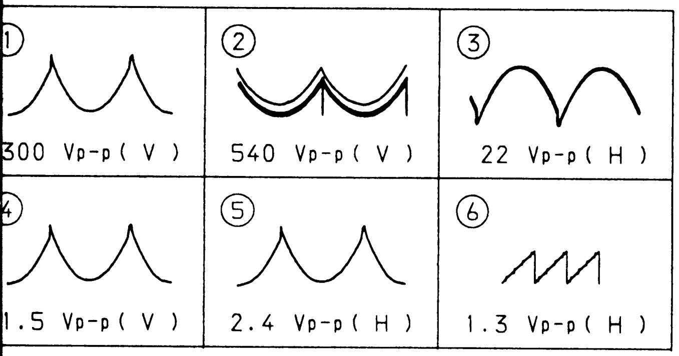

C201
10
R204
2.2k
:RN
IC201 (1/2)
μPC814C
PRE-AMP1
R201
2.2k
:RN
C203
10
0
0
-0.8
R203
47k
:RN
R202
2.2k
:RN
R205
1k
C202
10
C205
0.01
F
CN293
2P
BLK-L
:S-MICRO
-35V 2
GND 1
TO G BOARD
CM196
R238
2.2
1/4W
:FPRD
L201
45μH
-35V
R236
1k
1/4W
:FPRD
Q201
2SA1441
FILTER
-36
-34.4
C211
47
R237
22k
C212
47
ERA
PROT
IC201 (2/2)
μPC814C
PRE-AMP1
1.8
R219
1k
1/4W
:FPRD
2.5
175
2.5
R218
10k
1.8
R217
4.7k
D201
RD10ESB2
PROTECTOR1
R220
100
1/4W
:FPR
R212
10k

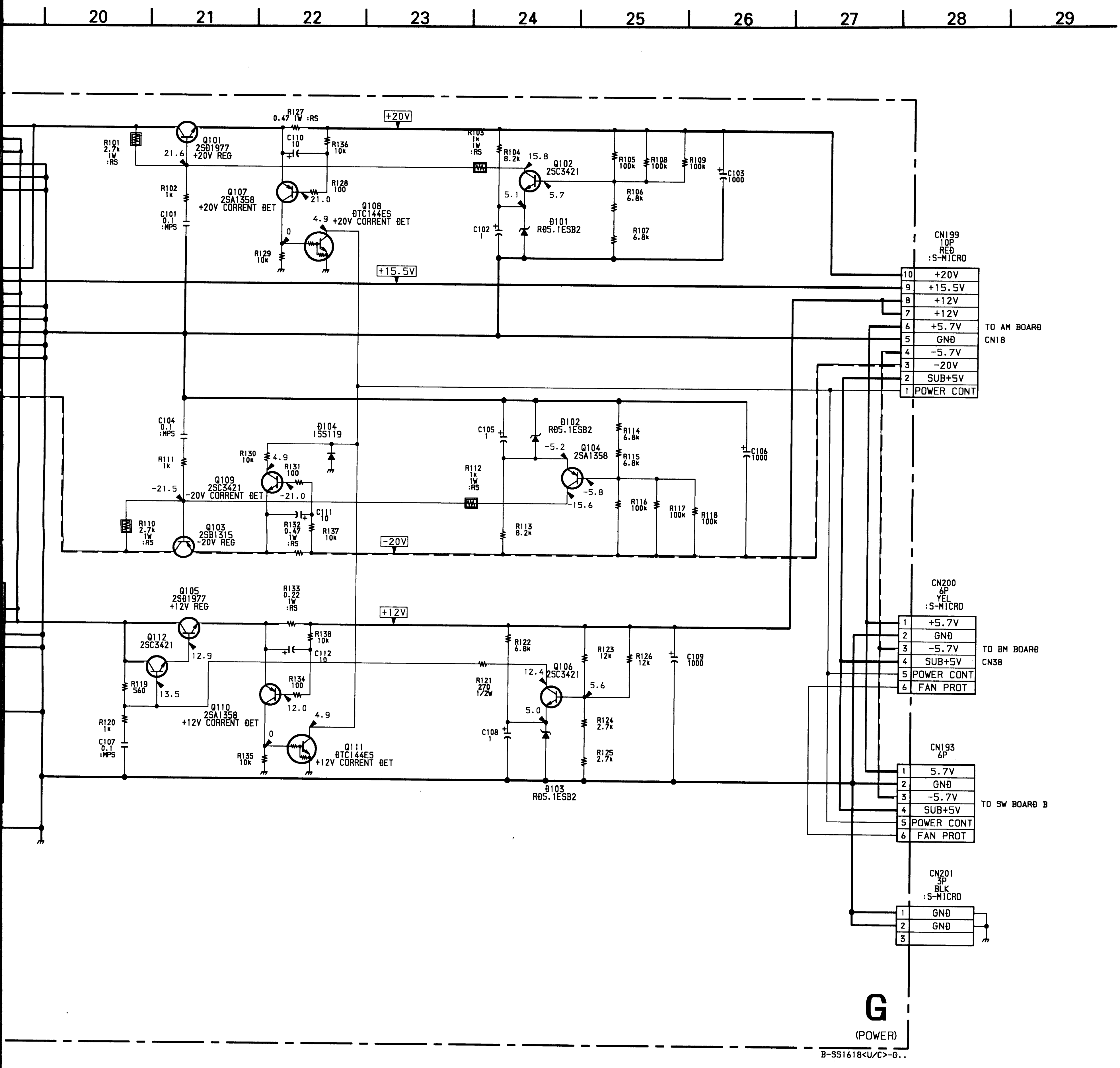
K BOARD


①
300 Vp-p (V)
④
1.5 Vp-p (V)


11
12
13
14
15
16
17
18
19
20
21
22
K
(DYNAMIC FOCUS)
+15.5V
-15.5V
-33V
-35V
+400V
R231 3.9k :RN
Q205 2SB1977 BUFFER2
R232 100 1/4W :FPRD
R234 1 1/4W :FPRD
R235 1 1/4W :FPRD
R233 100 1/4W :FPRD
Q206 2SB1315 BUFFER2
Q202 2SC3421 AMP3
D205 1SS119 BIAS
D204 1SS119 THERM-CANCEL
R229 47k
R228 1.5k
R230 270 :RN
C206 10
R204 2.2k :RN
IC201 (1/2) μPC814C PRE-AMP1
C204 0.01 F
R208 22k :RN
R206 10k :RN
R209 22k :RN
IC202 μPC814C PRE-AMP2
R207 4.7k
R205 1k
C202 10
C205 0.01 F
R236 1k 1/4W :FPRD
Q201 2SA1441 FILTER
C213 10
C214 10
C212 47
R237 22k
D203 ERA22-06 PROTECTOR3
C207 4.7 100V
T201
R210 1k 1/2W :RC
SG202
SG201
C208 0.01 500V E
CN292 1P WHT :MINI
DF
TO FOCUS PACK
CN294 3P YEL-L :S-MICRO
GND
GND
GND
CN291 8P WHT-L :S-MICRO
+400V
NC
+15.5V
GND
-15.5V
V PARA
H PARA
H SAW
TO PA BOARD CN285
R226 4.7 1/4W :FPRD
R227 2.2 1/4W :FPRD
R224 220k 1/2W :RC
R221 220k 1/2W :RC
R222 1k 1/4W :FPRD
D202 RD10ESB2 PROTECTOR2
Q204 2SK929 BUFFER1
IC201 (2/2) μPC814C PRE-AMP1
R219 1k 1/4W :FPRD
Q203 2SK929 AMP2
D201 RD10ESB2 PROTECTOR1
R217 4.7k
R220 100 1/4W :FPRD
R213 100k
R214 820k :RN
R223 100k 2W :RS
R225 1k 1/4W :FPRD
R211 1k 1/2W :RC
R215 47k 2W :RS
C210 0.47 :MPS
C209 1
R216 330 :RN
R212 10k
B-SS1542<AEP>-K..
CN192 9P
35V
15V
15V
GND
GND
GND
-15V
-15V
-35V
TO SW BOARD B
TO DC BOARD DC-1
CN194 11P WHT :S-MICRO
CN195 10P WHT :S-MICRO
210V
NC
100V
NC
+15.5V
+15.5V
-15.5V
-15.5V
TO DM BOARD CN68
TO K BOARD CN293
-35V
CN196 2P BLK :S-MICRO
TO SWBOARD A
CN191 5P
R101 2.7k 1W :RS
Q101 2SD1977 +20V REG
R127 0.47 1W :RS
C110 10
R136 10k
R102 1k
Q107 2SA1358 +20V CORRENT DET
R128 100
C101 0.1 :MPS
R129 10k
Q108 DTC144 +20V CORRE
C104 0.1 :MPS
D104 1SS119
R111 1k
R130 10k
R131 100
Q109 2SC3421 -20V CORRENT DET
C111 10
R110 2.7k 1W :RS
Q103 2SB1315 -20V REG
R132 0.47 1W :RS
R137 10k
Q105 2SD1977 +12V REG
R133 0.22 1W :RS
R138 10k
Q112 2SC3421
C112 10
R119 560
R134 100
Q110 2SA1358 +12V CORRENT DET
R120 1k
C107 0.1 :MPS
R135 10k
Q111 DTC144ES +12V CORRENT

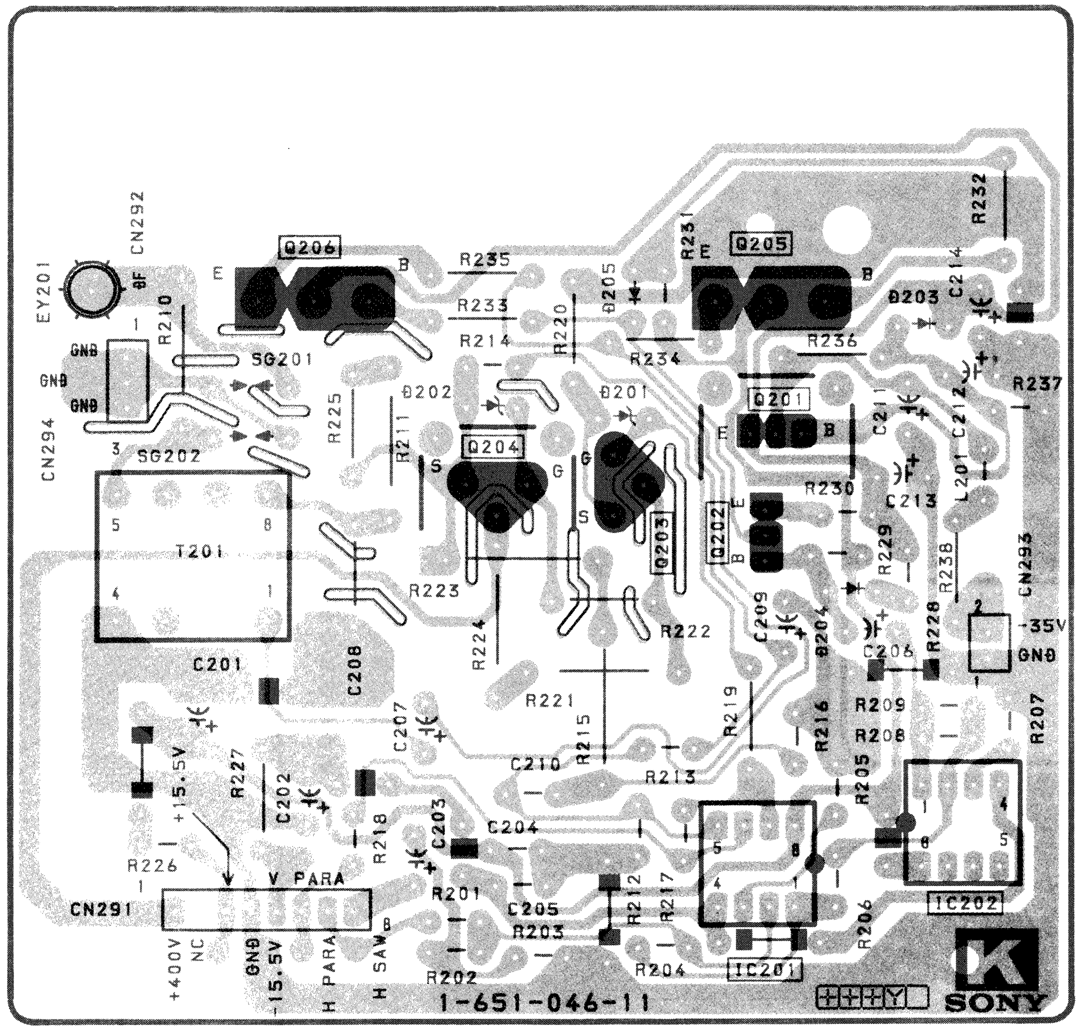
BOARD


①
300 Vp-p (V)
②
540 Vp-p (V)
③
22 Vp-p (H)
④
1.5 Vp-p (V)
⑤
2.4 Vp-p (H)
⑥
1.3 Vp-p (H)


20
21
22
23
24
25
26
27
28
29
R101 2.7k 1W :RS
Q101 2SD1977 +20V REG
21.6
R102 1k
C101 0.1 :MPS
R127 0.47 1W :RS
C110 10
R136 10k
R128 100
Q107 2SA1358 +20V CORRENT DET
21.0
Q108 DTC144ES +20V CORRENT DET
4.9
0
R129 10k
+20V
+15.5V
R103 1k 1W :RS
R104 8.2k
15.8
Q102 2SC3421
5.1
5.7
C102 1
D101 RD5.1ESB2
R105 100k
R108 100k
R109 100k
C103 1000
R106 6.8k
R107 6.8k
CN199 10P RED :S-MICRO
10 +20V
9 +15.5V
8 +12V
7 +12V
6 +5.7V
5 GND
4 -5.7V
3 -20V
2 SUB+5V
1 POWER CONT
TO AM BOARD CN18
C104 0.1 :MPS
R111 1k
-21.5
Q109 2SC3421 -20V CORRENT DET
R130 10k
4.9
R131 100
-21.0
D104 1SS119
C111 10
R132 0.47 1W :RS
R137 10k
R110 2.7k 1W :RS
Q103 2SB1315 -20V REG
-20V
C105 1
D102 RD5.1ESB2
-5.2
Q104 2SA1358
-5.8
-15.6
R112 1k 1W :RS
R113 8.2k
R114 6.8k
R115 6.8k
R116 100k
R117 100k
R118 100k
C106 1000
Q105 2SD1977 +12V REG
Q112 2SC3421
12.9
13.5
R119 560
R120 1k
C107 0.1 :MPS
Q110 2SA1358 +12V CORRENT DET
R133 0.22 1W :RS
R138 10k
C112 10
R134 100
12.0
4.9
0
R135 10k
Q111 DTC144ES +12V CORRENT DET
+12V
R122 6.8k
R121 270 1/2W
12.4
Q106 2SC3421
5.0
5.6
C108 1
D103 RD5.1ESB2
R123 12k
R126 12k
C109 1000
R124 2.7k
R125 2.7k
CN200 6P YEL :S-MICRO
1 +5.7V
2 GND
3 -5.7V
4 SUB+5V
5 POWER CONT
6 FAN PROT
TO BM BOARD CN38
CN193 6P
1 5.7V
2 GND
3 -5.7V
4 SUB+5V
5 POWER CONT
6 FAN PROT
TO SW BOARD B
CN201 3P BLK :S-MICRO
1 GND
2 GND
3
G
(POWER)
B-SS1618<U/C>-G..

K [DYNAMIC FOCUS]

– K BOARD –


EY201
CN292
6F
R210
GND
GND
GND
CN294
SG201
SG202
T201
C201
C208
Q206
Q205
Q204
Q201
Q202
Q203
D205
D202
D201
D203
D204
R235
R233
R214
R220
R231
R232
R234
R236
R237
R225
R211
R230
R229
R238
R228
R223
R224
R222
R221
R215
R219
R216
R209
R208
R207
R205
R213
R227
R226
R218
R201
R203
R202
R212
R217
R204
R206
C214
C211
C212
C213
L201
C209
C206
C207
C210
C202
C203
C204
C205
CN293
-35V
GND
+15.5V
V PARA
CN291
+400V
NC
GND
-15.5V
H PARA
H SAW
IC201
IC202
1-651-046-11
K
SONY

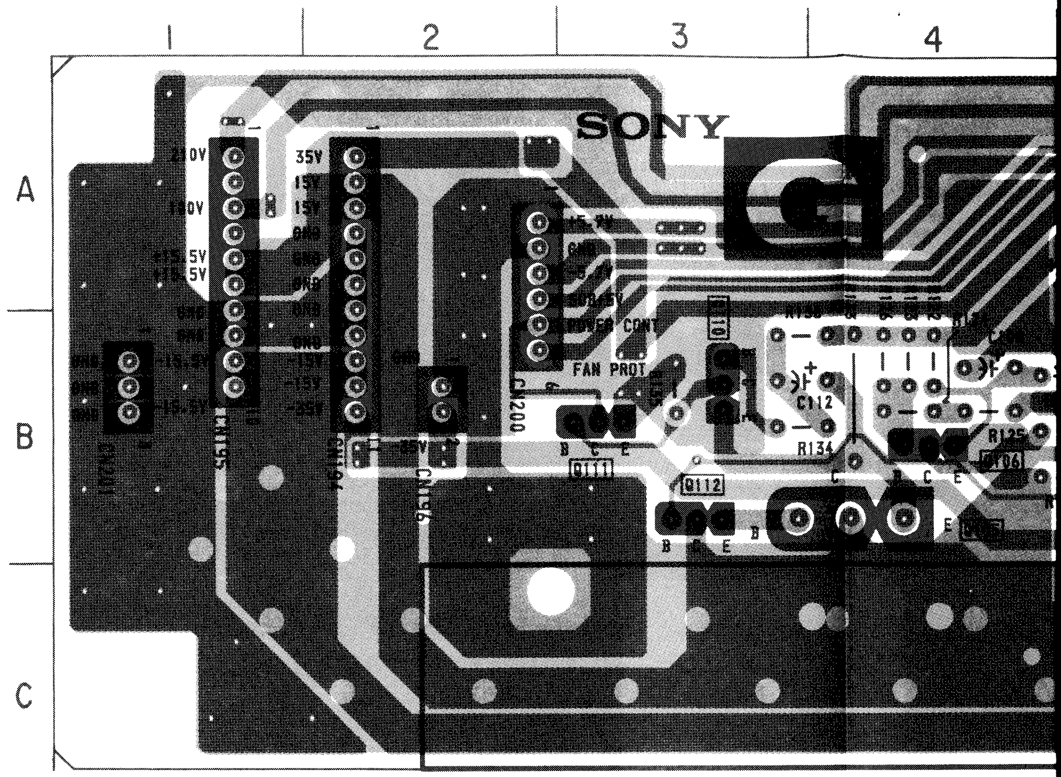
G [POWER]

NA [RECEIVER]

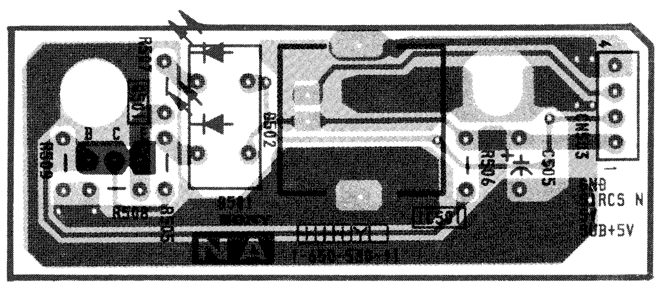
G BOARD

TRANSISTOR	
Q101	B-11
Q102	A-8
Q103	B-9
Q104	B-6
Q105	B-4
Q106	B-4
Q107	B-10
Q108	B-9
Q109	C-8
Q110	B-3
Q111	B-3
Q112	B-3
DIODE	
D101	B-8
D102	A-6
D103	B-5
D104	B-9

– G BOARD –

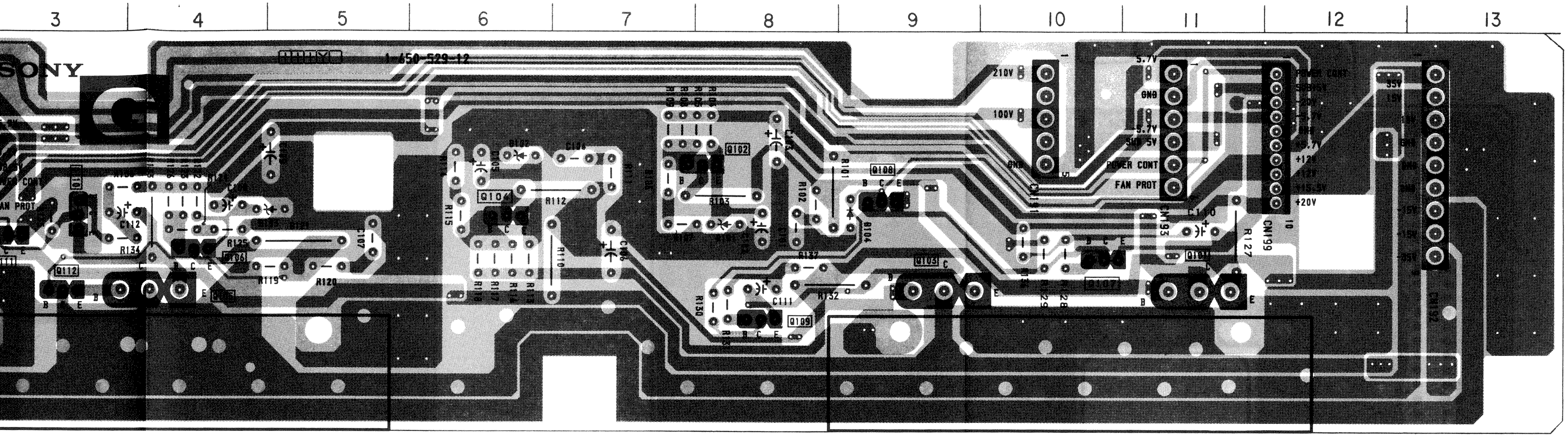

1
2
3
4
A
B
C
SONY
G
210V
35V
15V
GND
-15.5V
CN101
CN106
CN200
FAN PROT
Q111
Q112
C112
R134
R125
Q106

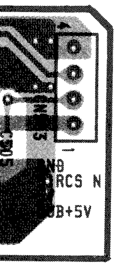
– NA BOARD –


NA
GND
RCS N
SB+5V

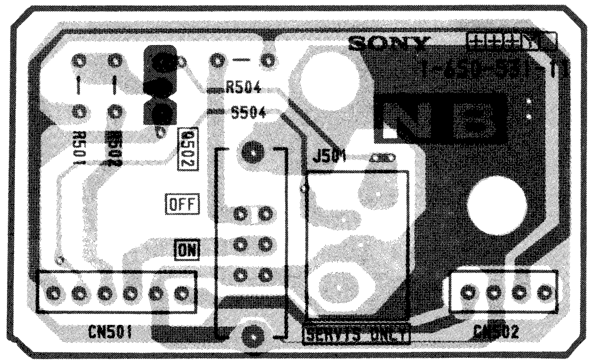
ER]

NB [RECEIVER]


3
4
5
6
7
8
9
10
11
12
13
SONY
1-650-529-12
210V
100V
GND
5.7V
GND
5.7V
SW 5V
POWER CONT
FAN PROT
+12V
+20V
CN193
CN199
CN192
Q101
Q102
Q103
Q104
Q106
Q107
Q108
Q109
Q112
R101
R102
R103
R104
R110
R112
R115
R119
R120
R125
R127
R128
R129
R132
R134
R136
C110
C111
C112
B
C
E



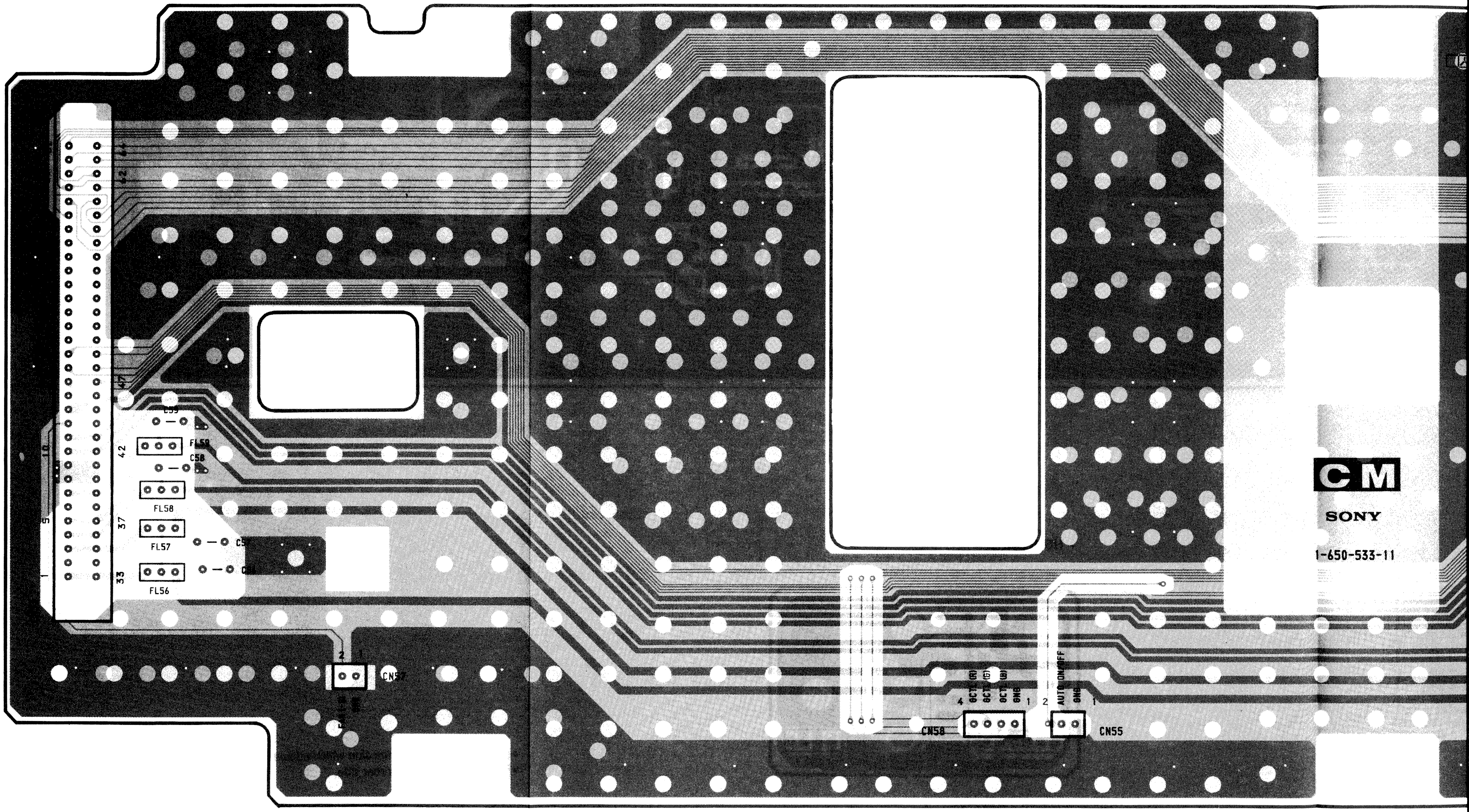
– NB BOARD –

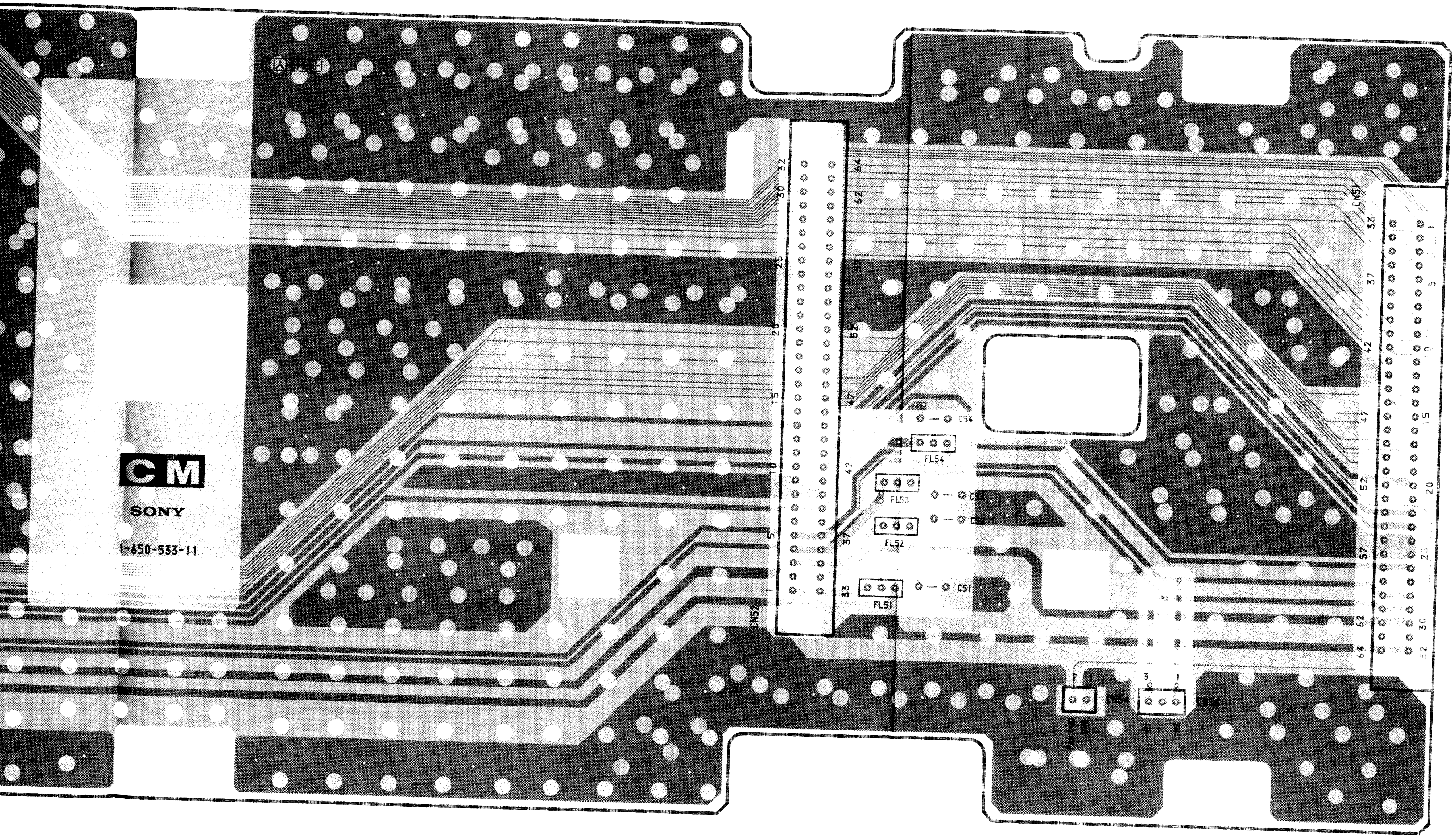

SONY
1-650-531-11
NB
R501
R502
R504
S504
Q502
OFF
ON
J501
CN501
CN502
SERVIS ONLY

- ░ : Pattern from the side which enables seeing.
- ▒ : Pattern of the rear side.

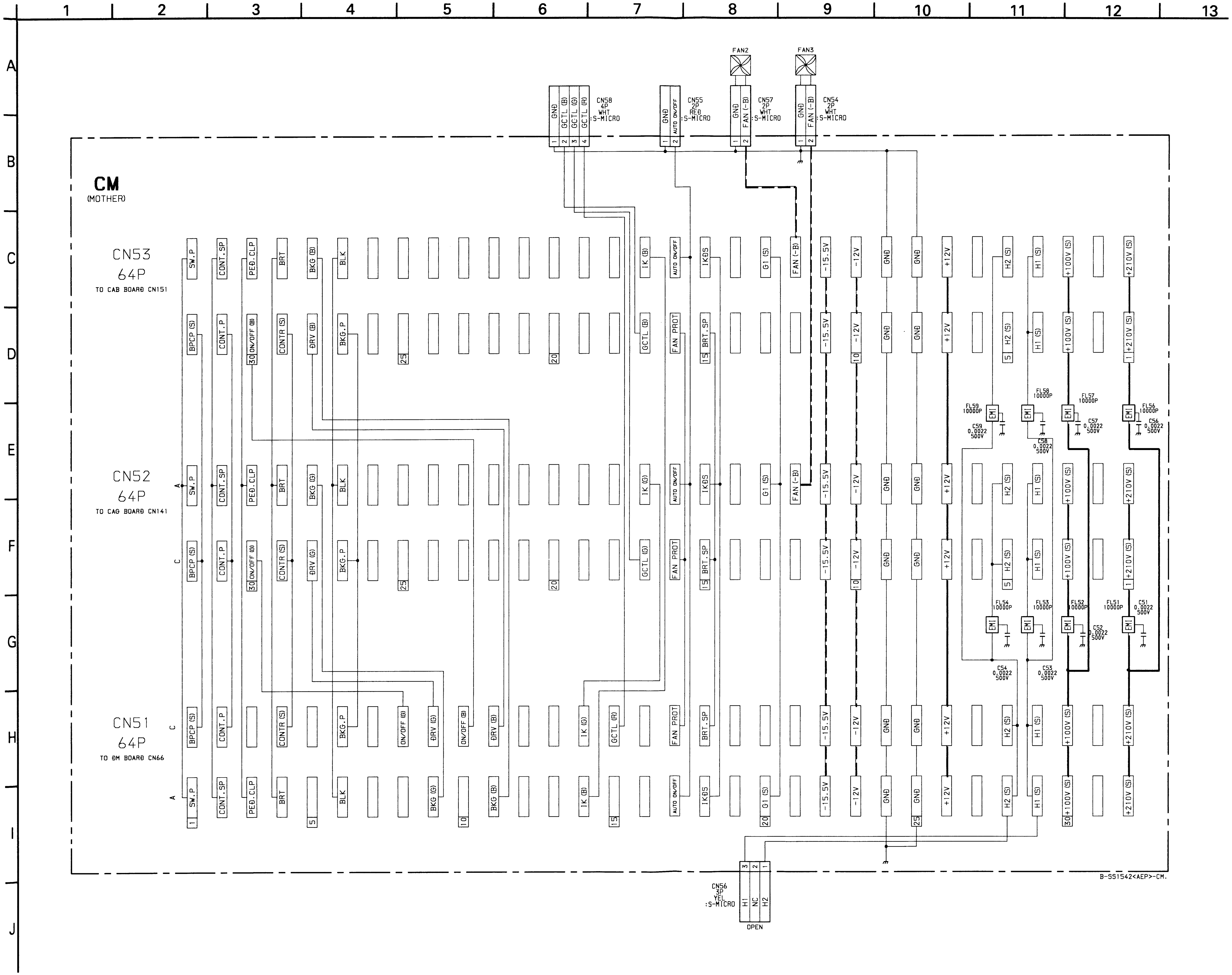
CM [MOTHER]

– CM BOARD –


42
37
33
47
10
5
1
C59
FL59
C58
FL58
FL57
C57
FL56
C56
CN57
2
1
CN58
4
GCTL(R)
GCTL(G)
GCTL(B)
GND
1
2
AUTO ON/OFF
GND
1
CN55
CM
SONY
1-650-533-11


CM
SONY
1-650-533-11
CN52
CN51
CN54
CN56
FL51
FL52
FL53
FL54
C51
C52
C53
C54
1
5
10
15
20
25
30
32
33
37
42
47
52
57
62
64

- ░ : Pattern from the side which enables seeing.
- ▒ : Pattern of the rear side.


1
2
3
4
5
6
7
8
9
10
11
12
13
A
B
C
D
E
F
G
H
I
J
CM
(MOTHER)
CN53
64P
TO CAB BOARD CN151
CN52
64P
TO CAG BOARD CN141
CN51
64P
TO DM BOARD CN66
FAN2
FAN3
CN58
4P
WHT
:S-MICRO
GND
GCTL (B)
GCTL (G)
GCTL (R)
CN55
2P
RED
:S-MICRO
AUTO ON/OFF
CN57
2P
WHT
:S-MICRO
FAN (-B)
CN54
2P
WHT
:S-MICRO
SW.P
CONT.SP
PED.CLP
BRT
BKG (B)
BLK
IK (B)
IKDS
G1 (S)
-15.5V
-12V
+12V
H2 (S)
H1 (S)
+100V (S)
+210V (S)
BPCP (S)
CONT.P
ON/OFF (B)
CONTR (S)
DRV (B)
BKG.P
FAN PROT
BRT.SP
BKG (G)
IK (G)
GCTL (G)
ON/OFF (G)
DRV (G)
GCTL (R)
1
5
10
15
20
25
30
A
C
FL59
10000P
C59
0.0022
500V
FL58
10000P
C58
0.0022
500V
FL57
10000P
C57
0.0022
500V
FL56
10000P
C56
0.0022
500V
FL54
10000P
C54
0.0022
500V
FL53
10000P
C53
0.0022
500V
FL52
10000P
C52
0.0022
500V
FL51
10000P
C51
0.0022
500V
EMI
CN56
3P
YEL
:S-MICRO
H1
NC
H2
OPEN
B-SS1542<AEP>-CM.

CAC

[PULSE GEN]

CAC BOARD

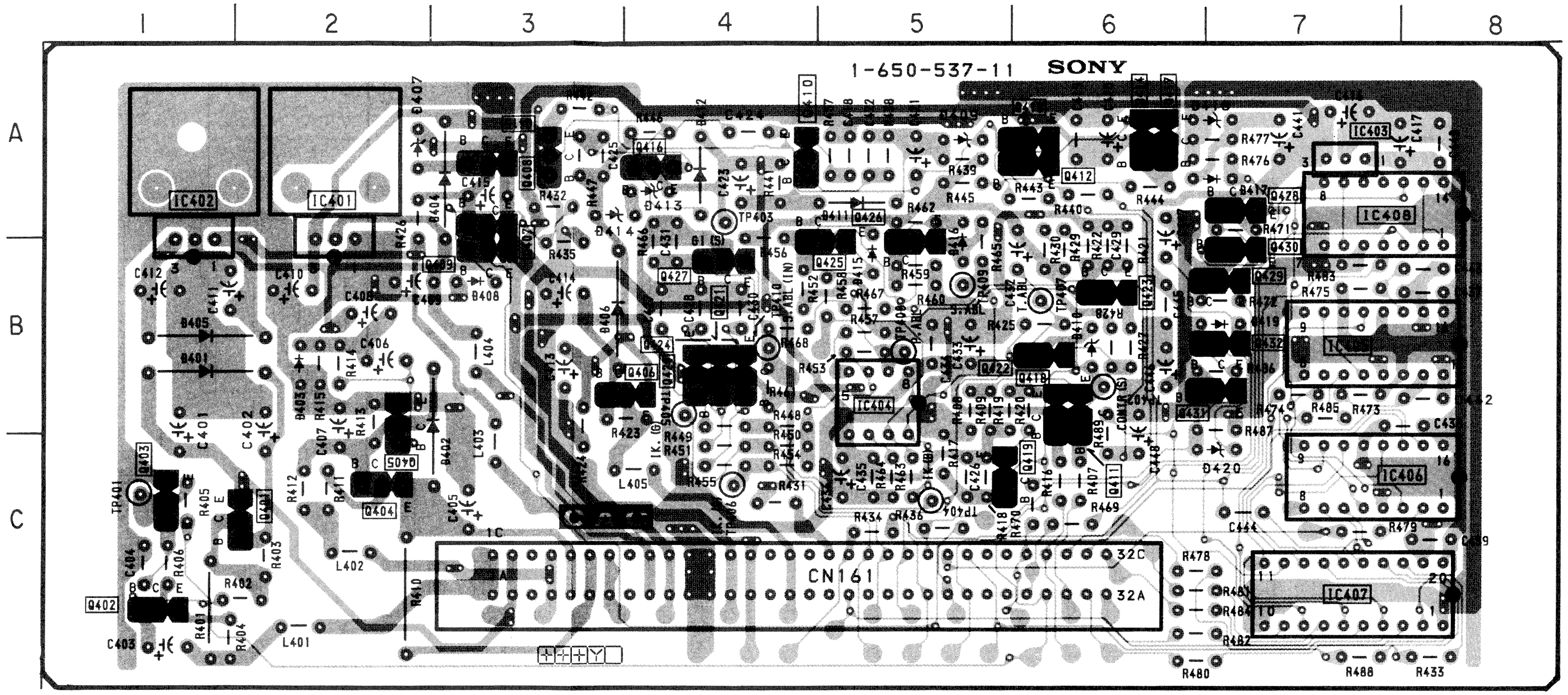
IC	
IC401	A-2
IC402	A-1
IC403	A-7
IC404	B-5
IC405	B-7
IC406	A-7
IC407	C-7
IC408	A-7

TRANSISTOR	
Q401	C-2
Q402	C-1
Q403	C-1
Q404	C-2
Q405	C-2
Q406	B-4
Q407	A-3
Q408	A-3
Q409	B-3
Q410	A-4
Q411	B-6
Q412	A-6
Q413	A-6
Q414	A-6
Q415	A-3
Q416	A-4
Q417	A-6
Q418	B-6
Q420	B-4
Q421	B-4
Q422	B-6
Q423	B-6
Q424	B-4
Q425	B-5
Q426	A-5
Q427	B-4
Q428	A-7
Q429	B-7
Q430	B-7
Q431	B-7
Q432	B-7

DIODE	
D401	B-1
D402	B-3
D403	B-2
D404	A-3
D405	B-1
D406	B-3
D407	A-2
D408	B-3
D409	A-5
D410	B-6
D411	A-5
D412	A-4
D413	A-4
D414	A-3
D415	B-5
D416	A-5
D417	A-7
D418	A-7
D419	B-7
D420	C-7

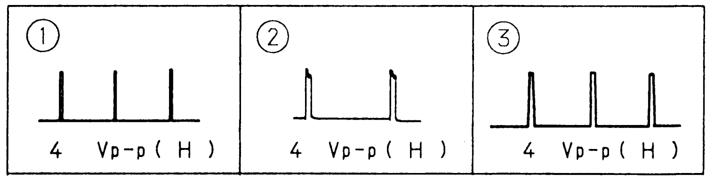
TEST POINT	
TP401	C-1
TP402	B-3
TP403	A-4
TP404	C-5
TP405	B-4
TP406	C-4
TP407	B-6
TP408	B-5
TP409	B-5
TP410	B-4

– CAC BOARD –

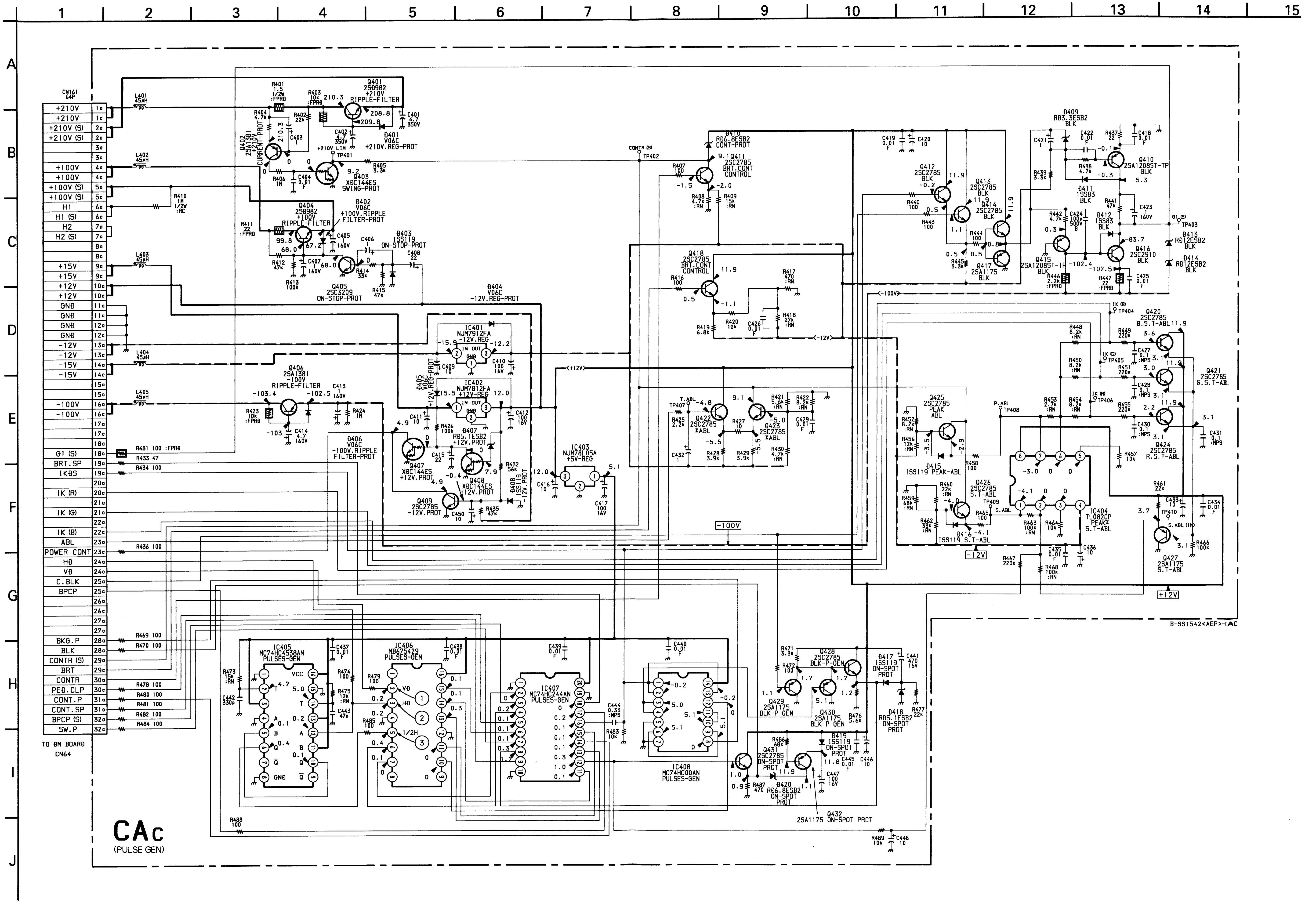

1
2
3
4
5
6
7
8
A
B
C
1-650-537-11
SONY
IC401
IC402
IC403
IC404
IC405
IC406
IC407
IC408
CN161
1C
32C
32A
TP401
TP403
L401
L402
L403
L404
L405

- ▨ : Pattern from the side which enables seeing.
- ▩ : Pattern of the rear side.

CAC BOARD



Schematic diagram
← CM board


CN161 64P
+210V 1a
+210V 1c
+210V (S) 2a
+210V (S) 2c
+100V 4a
+100V 4c
+100V (S) 5a
+100V (S) 5c
H1 6a
H1 (S) 6c
H2 7a
H2 (S) 7c
+15V 9a
+15V 9c
+12V 10a
+12V 10c
GND 11a
GND 11c
GND 12a
GND 12c
-12V 13a
-12V 13c
-15V 14a
-15V 14c
-100V 16a
-100V 16c
G1 (S) 18c
BRT.SP 19a
IKOS 19c
IK (R) 20c
IK (G) 21c
IK (B) 22c
ABL 23a
POWER CONT 23c
HD 24a
VD 24c
C.BLK 25a
BPCP 25c
BKG.P 28a
BLK 28c
CONTR (S) 29a
BRT 29c
CONTR 30a
PED.CLP 30c
CONT.P 31a
CONT.SP 31c
BPCP (S) 32a
SW.P 32c
TO DM BOARD CN64
Q401 2SD982 +210V RIPPLE-FILTER
Q402 2SA1381 +210V CURRENT-PROT
Q403 XBC144ES SWING-PROT
Q404 2SD982 +100V RIPPLE-FILTER
Q405 2SC3209 ON-STOP-PROT
Q406 2SA1381 -100V RIPPLE-FILTER
Q407 XBC144ES +12V.PROT
Q408 XBC144ES +12V.PROT
Q409 2SC2785 -12V.PROT
D401 V06C +210V.REG-PROT
D402 V06C +100V.RIPPLE FILTER-PROT
D403 1SS119 ON-STOP-PROT
D404 V06C -12V.REG-PROT
D405 V06C +12V.REG-PROT
D406 V06C -100V.RIPPLE FILTER-PROT
D407 RD5.1ESB2 +12V.PROT
D408 1SS119 -12V.PROT
IC401 NJM7912FA -12V.REG
IC402 NJM7812FA +12V.REG
IC403 NJM78L05A +5V-REG
D410 RD6.8ESB2 CONT-PROT
Q411 2SC2785 BRT.CONT CONTROL
Q418 2SC2785 BRT.CONT CONTROL
Q422 2SC2785 ΣABL
Q423 2SC2785 ΣABL
Q412 2SC2785 BLK
Q413 2SC2785 BLK
Q414 2SC2785 BLK
Q417 2SA1175 BLK
Q415 2SA1208ST-TP BLK
Q416 2SC2910 BLK
Q410 2SA1208ST-TP BLK
D409 RD3.3ESB2 BLK
D411 1SS83 BLK
D412 1SS83 BLK
D413 RD12ESB2 BLK
D414 RD12ESB2 BLK
Q420 2SC2785 B.S.T-ABL
Q421 2SC2785 G.S.T-ABL
Q424 2SC2785 R.S.T-ABL
Q425 2SC2785 PEAK ABL
D415 1SS119 PEAK-ABL
Q426 2SC2785 S.T-ABL
D416 1SS119 S.T-ABL
IC404 TL082CP PEAK S.T-ABL
Q427 2SA1175 S.T-ABL
IC405 MC74HC4538AN PULSES-GEN
IC406 MB675429 PULSES-GEN
IC407 MC74HC244AN PULSES-GEN
IC408 MC74HC00AN PULSES-GEN
Q428 2SC2785 BLK-P-GEN
Q429 2SA1175 BLK-P-GEN
Q430 2SA1175 BLK-P-GEN
D417 1SS119 ON-SPOT PROT
D418 RD5.1ESB2 ON-SPOT PROT
Q431 2SC2785 ON-SPOT PROT
D419 1SS119 ON-SPOT PROT
D420 RD6.8ESB2 ON-SPOT PROT
Q432 2SA1175 ON-SPOT PROT
TP401
TP402
TP403
TP404
TP405
TP406
TP407
TP408
TP409
TP410
-100V
-12V
+12V
B-SS1542<AEP>-CAC
CAc
(PULSE GEN)

CAR [VIDEO OUR (R)]

CAR BOARD

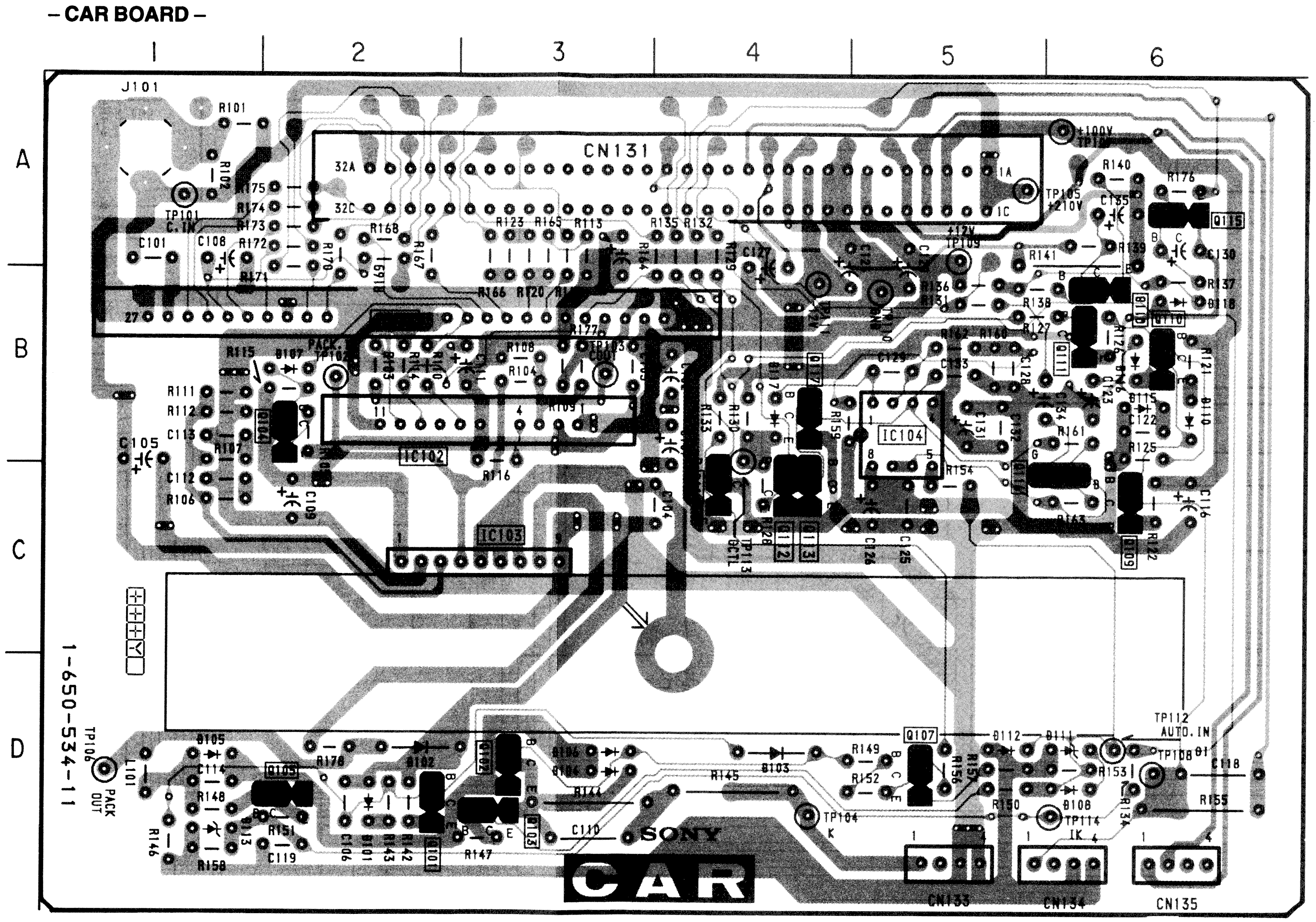
IC	
IC101	B-2
IC103	C-3
IC104	B-5

TRANSISTOR	
Q101	D-2
Q102	D-3
Q103	D-3
Q104	B-2
Q105	D-2
Q107	D-5
Q109	C-6
Q110	B-6
Q111	B-6
Q112	C-4
Q113	C-4
Q114	C-4
Q115	A-6
Q116	C-6
Q117	B-4
Q118	B-6

DIODE	
D101	D-2
D102	D-2
D103	D-4
D104	D-3
D105	D-1
D106	D-3
D107	B-2
D108	D-6
D110	B-6
D111	D-6
D112	D-5
D113	D-1
D115	B-6
D116	B-6
D117	B-4
D118	B-6

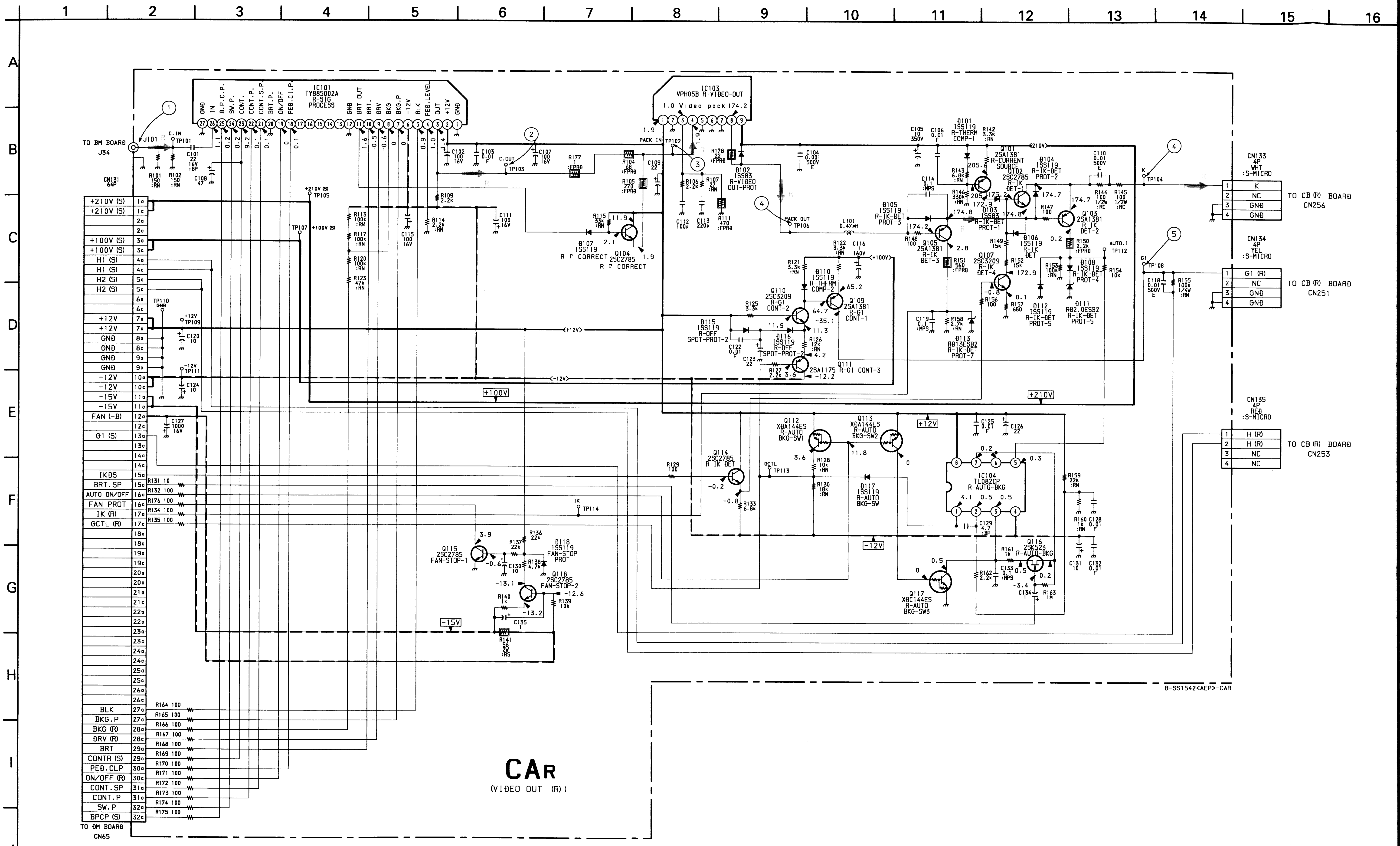
TEST POINT	
TP101	A-1
TP102	B-2
TP103	B-3
TP104	D-4
TP105	A-5
TP106	D-1
TP107	A-6
TP108	D-6
TP109	A-5
TP110	B-5
TP111	B-4
TP112	D-6
TP113	B-4
TP114	D-6

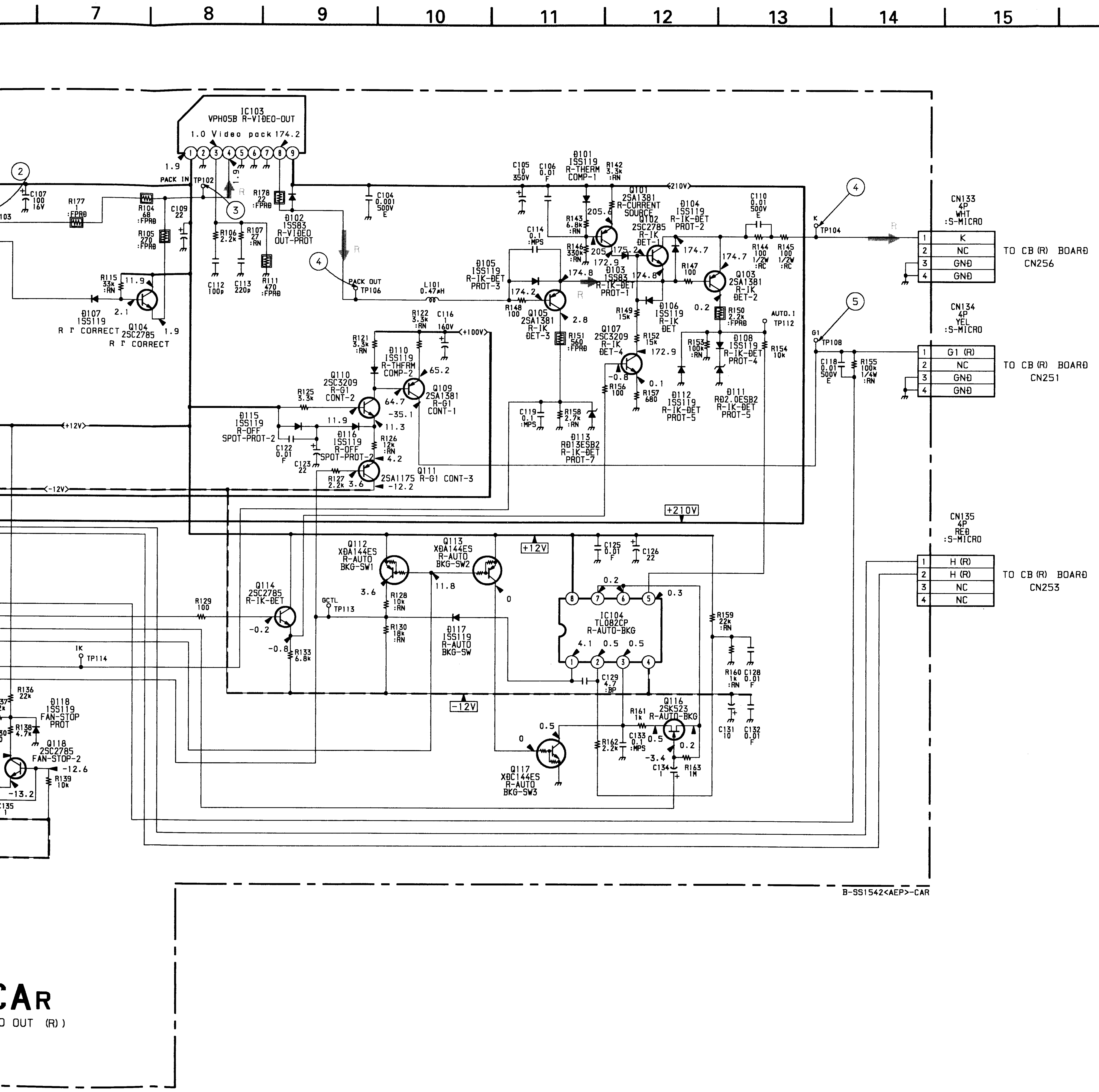
– CAR BOARD –


1
2
3
4
5
6
A
B
C
D
J101
CN131
32A
32C
1A
1C
27
IC102
IC103
IC104
+100V
+210V
+12V
TP112
AUTO. IN
PACK OUT
1-650-534-11
SONY
CAR
CN133
CN134
CN135

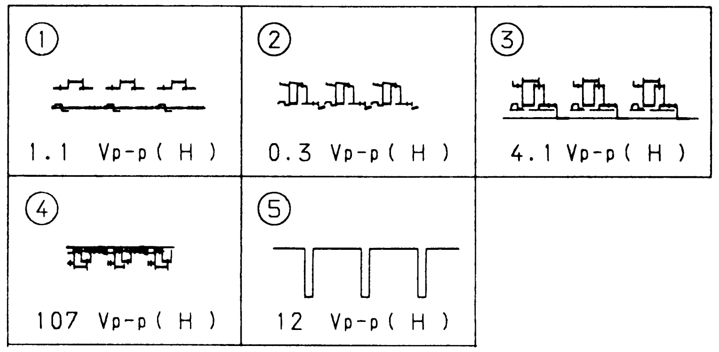
- ▨ : Pattern from the side which enables seeing.
- ░ : Pattern of the rear side.

Schematic diagram
← CAC board


1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
A
B
C
D
E
F
G
H
I
J
IC101
TY885002A
R-SIG
PROCESS
IC103
VPH05B R-VIDEO-OUT
IC104
TL082CP
R-AUTO-BKG
TO BM BOARD
J34
J101
CN131
64P
+210V (S)
+100V (S)
H1 (S)
H2 (S)
+12V
GND
-12V
-15V
FAN (-B)
G1 (S)
IKDS
BRT.SP
AUTO ON/OFF
FAN PROT
IK (R)
GCTL (R)
BLK
BKG.P
BKG (R)
DRV (R)
BRT
CONTR (S)
PED.CLP
ON/OFF (R)
CONT.SP
CONT.P
SW.P
BPCP (S)
TO BM BOARD
CN65
CN133
4P
WHT
:S-MICRO
K
NC
GND
TO CB (R) BOARD
CN256
CN134
4P
YEL
:S-MICRO
G1 (R)
TO CB (R) BOARD
CN251
CN135
4P
RED
:S-MICRO
H (R)
TO CB (R) BOARD
CN253
Q101
2SA1381
R-CURRENT SOURCE
Q102
2SC2785
R-IK DET-1
Q103
2SA1381
R-IK DET-2
Q104
2SC2785
R Γ CORRECT
Q105
2SA1381
R-IK DET-3
Q107
2SC3209
R-IK DET-4
Q109
2SA1381
R-G1 CONT-1
Q110
2SC3209
R-G1 CONT-2
Q111
2SA1175
R-G1 CONT-3
Q112
XDA144ES
R-AUTO BKG-SW1
Q113
XDA144ES
R-AUTO BKG-SW2
Q114
2SC2785
R-IK-DET
Q115
2SC2785
FAN-STOP-1
Q116
2SK523
R-AUTO-BKG
Q117
XDC144ES
R-AUTO BKG-SW3
Q118
2SC2785
FAN-STOP-2
+100V
+210V
+12V
-12V
-15V
CAr
(VIDEO OUT (R))
B-SS1542<AEP>-CAR

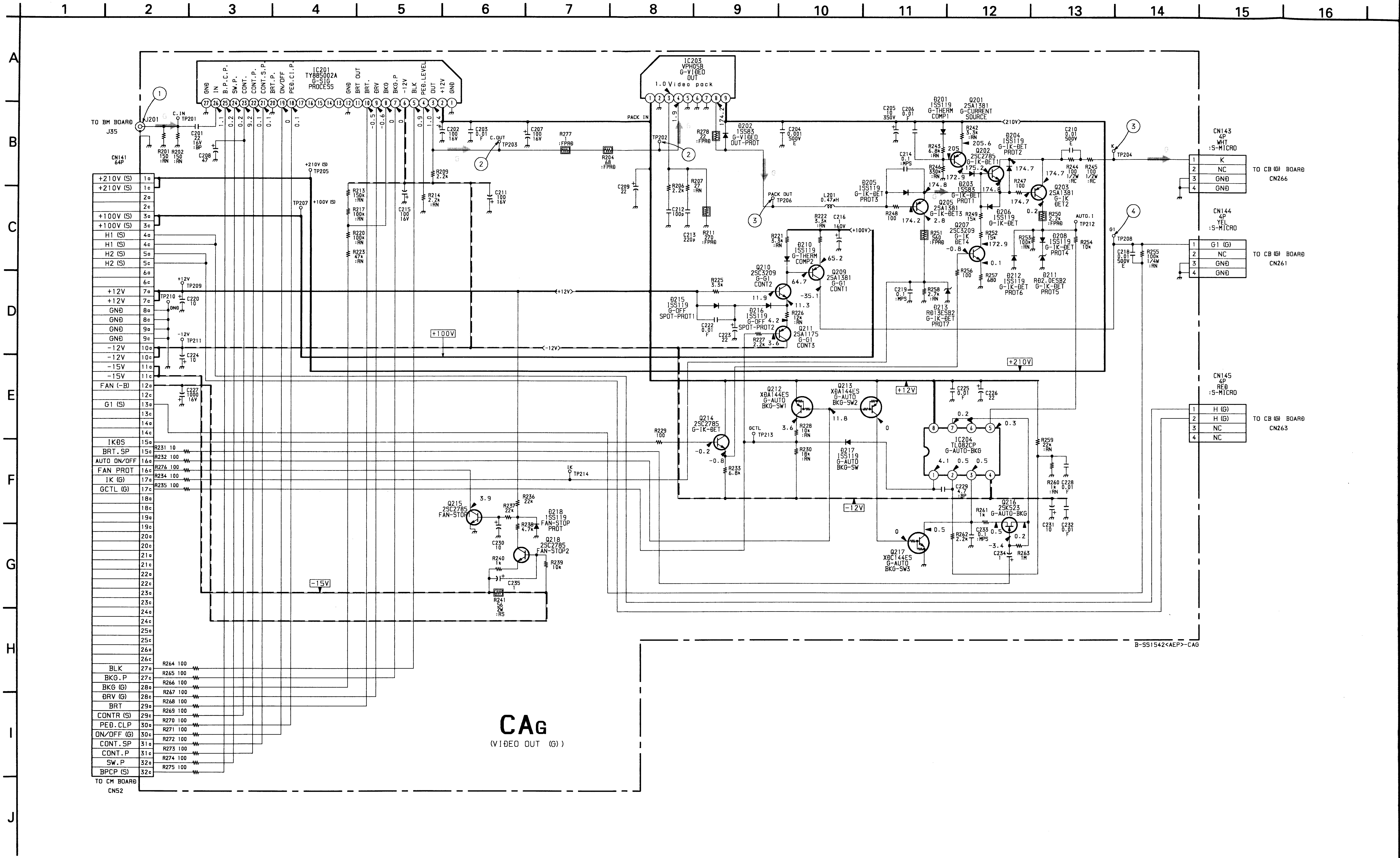

7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
IC103
VPH05B R-VIDEO-OUT
1.0 Video pack 174.2
PACK IN TP102
PACK OUT TP106
Q102 1SS83 R-VIDEO OUT-PROT
Q107 1SS119 R r CORRECT
Q104 2SC2785 R r CORRECT
Q101 1SS119 R-THERM COMP-1
Q101 2SA1381 R-CURRENT SOURCE
Q102 2SC2785 R-IK DET-1
Q104 1SS119 R-IK-DET PROT-2
Q103 2SA1381 R-IK DET-2
Q105 1SS119 R-IK-DET PROT-3
Q103 1SS83 R-IK-DET PROT-1
Q105 2SA1381 R-IK DET-3
Q106 1SS119 R-IK DET
Q107 2SC3209 R-IK DET-4
Q108 1SS119 R-IK-DET PROT-4
Q110 1SS119 R-THERM COMP-2
Q109 2SA1381 R-G1 CONT-1
Q110 2SC3209 R-G1 CONT-2
Q115 1SS119 R-OFF SPOT-PROT-2
Q116 1SS119 R-OFF SPOT-PROT-2
Q111 2SA1175 R-G1 CONT-3
Q112 1SS119 R-IK-DET PROT-5
Q111 RD2.0ESB2 R-IK-DET PROT-5
Q113 RD13ESB2 R-IK-DET PROT-7
Q112 XDA144ES R-AUTO BKG-SW1
Q113 XDA144ES R-AUTO BKG-SW2
Q114 2SC2785 R-IK-DET
Q117 1SS119 R-AUTO BKG-SW
IC104 TL082CP R-AUTO-BKG
Q116 2SK523 R-AUTO-BKG
Q117 XBC144ES R-AUTO BKG-SW3
Q118 1SS119 FAN-STOP PROT
Q118 2SC2785 FAN-STOP-2
TP104
TP108
TP112
TP113
TP114
(+210V)
(+100V)
(+12V)
(-12V)
+210V
+12V
-12V
CN133 4P WHT :S-MICRO
1 K
2 NC
3 GND
4 GND
TO CB (R) BOARD CN256
CN134 4P YEL :S-MICRO
1 G1 (R)
2 NC
3 GND
4 GND
TO CB (R) BOARD CN251
CN135 4P RED :S-MICRO
1 H (R)
2 H (R)
3 NC
4 NC
TO CB (R) BOARD CN253
B-SS1542<AEP>-CAR
CAR
D OUT (R))

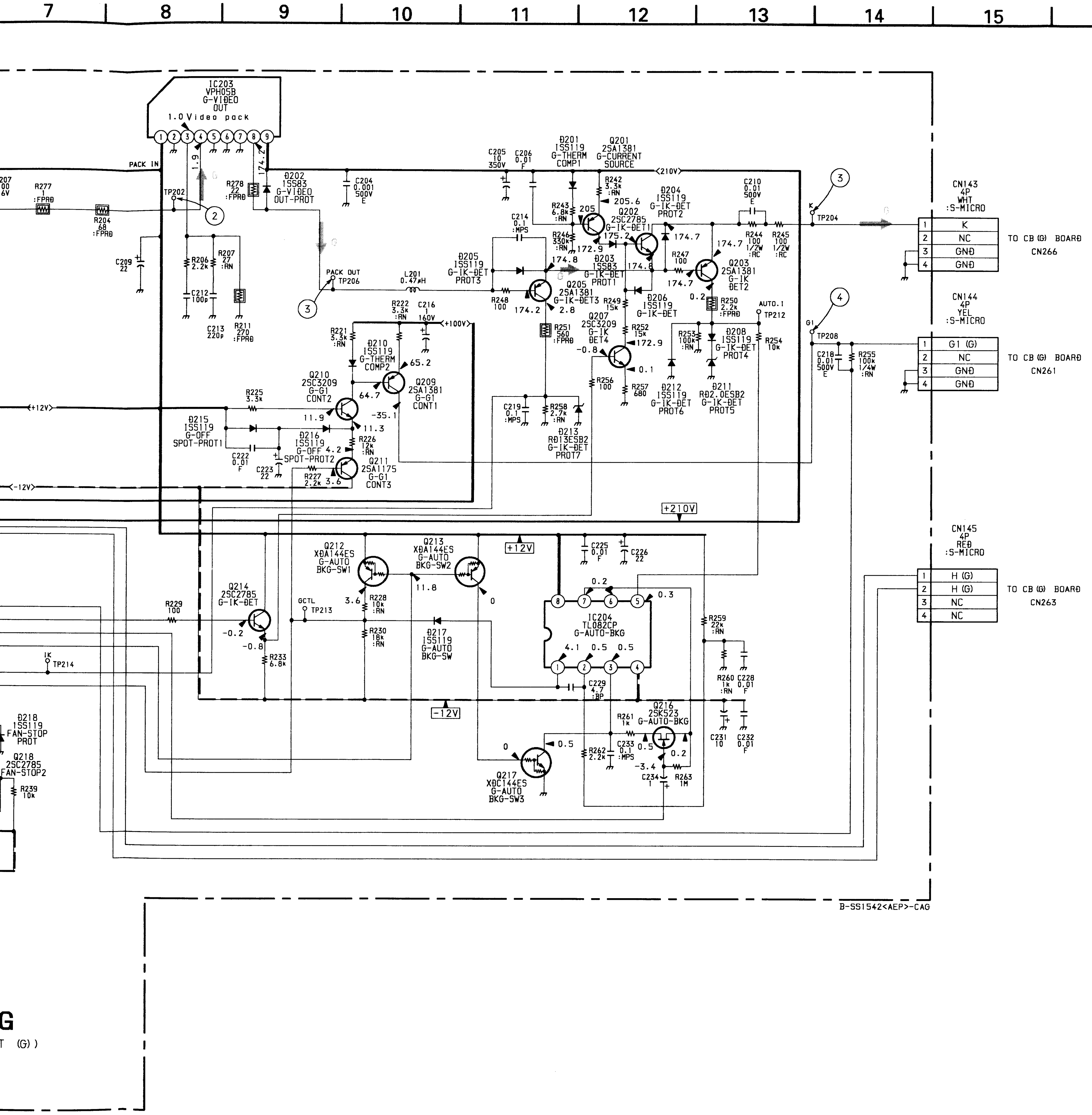
CAR BOARD


①
1.1 Vp-p (H)
②
0.3 Vp-p (H)
③
4.1 Vp-p (H)
④
107 Vp-p (H)
⑤
12 Vp-p (H)

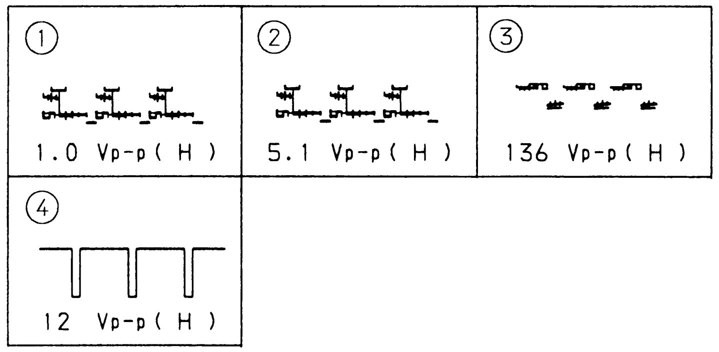
Schematic diagram
← CAR board

Schematic diagram
CAG board →


1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
A B C D E F G H I J
IC201 TY885002A G-SIG PROCESS
IC203 VPH05B G-VIDEO OUT
1.0 Video pack
TO BM BOARD J35
J201
C.IN TP201
CN141 64P
+210V (S)
+100V (S)
H1 (S)
H2 (S)
+12V
GND
-12V
-15V
FAN (-B)
G1 (S)
IKDS
BRT.SP
AUTO ON/OFF
FAN PROT
IK (G)
GCTL (G)
BLK
BKG.P
BKG (G)
DRV (G)
BRT
CONTR (S)
PED.CLP
ON/OFF (G)
CONT.SP
CONT.P
SW.P
BPCP (S)
TO CM BOARD CN52
PACK IN
PACK OUT TP206
D202 1SS83 G-VIDEO OUT-PROT
D201 1SS119 G-THERM COMP1
Q201 2SA1381 G-CURRENT SOURCE
Q202 2SC2785 G-IK-DET1
Q203 2SA1381 G-IK DET2
Q205 2SA1381 G-IK-DET3
Q207 2SC3209 G-IK DET4
D204 1SS119 G-IK-DET PROT2
D205 1SS119 G-IK-DET PROT3
D203 1SS83 G-IK-DET PROT1
D206 1SS119 G-IK-DET
D208 1SS119 G-IK-DET PROT4
D212 1SS119 G-IK-DET PROT6
D211 RD2.0ESB2 G-IK-DET PROT5
D213 RD13ESB2 G-IK-DET PROT7
Q210 2SC3209 G-G1 CONT2
Q209 2SA1381 G-G1 CONT1
Q211 2SA1175 G-G1 CONT3
D210 1SS119 G-THERM COMP2
D215 1SS119 G-OFF SPOT-PROT1
D216 1SS119 G-OFF SPOT-PROT2
Q212 XDA144ES G-AUTO BKG-SW1
Q213 XDA144ES G-AUTO BKG-SW2
Q214 2SC2785 G-IK-DET
D217 1SS119 G-AUTO BKG-SW
IC204 TL082CP G-AUTO-BKG
Q216 2SK523 G-AUTO-BKG
Q217 XDC144ES G-AUTO BKG-SW3
Q215 2SC2785 FAN-STOP
D218 1SS119 FAN-STOP PROT
Q218 2SC2785 FAN-STOP2
CN143 4P WHT :S-MICRO
K
NC
GND
TO CB (G) BOARD CN266
CN144 4P YEL :S-MICRO
G1 (G)
TO CB (G) BOARD CN261
CN145 4P RED :S-MICRO
H (G)
TO CB (G) BOARD CN263
TP204
TP208
TP212
TP213
TP214
+210V
+100V
+12V
-12V
-15V
B-SS1542<AEP>-CAG
CAG
(VIDEO OUT (G))


7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
IC203
VPH05B
G-VIDEO
OUT
1.0Video pack
PACK IN
TP202
R278 22 :FPRD
D202 1SS83 G-VIDEO OUT-PROT
C204 0.001 500V E
R277 1 :FPRD
R204 68 :FPRD
C209 22
R206 2.2k
R207 27 :RN
C212 100p
C213 220p
R211 270 :FPRD
PACK OUT TP206
L201 0.47μH
C205 10 350V
C206 0.01 F
D201 1SS119 G-THERM COMP1
Q201 2SA1381 G-CURRENT SOURCE
<210V>
R242 3.3k :RN
R243 6.8k :RN
205.6
Q202 2SC2785 G-IK-DET1
D204 1SS119 G-IK-DET PROT2
C214 0.1 :MPS
R246 330k :RN
175.2
172.9
174.7
D205 1SS119 G-IK-DET PROT3
174.8
D203 1SS83 G-IK-DET PROT1
174.8
R247 100
C210 0.01 500V E
R244 100 1/2W :RC
R245 100 1/2W :RC
Q203 2SA1381 G-IK DET2
174.7
Q205 2SA1381 G-IK-DET3
R248 100
174.2
2.8
R249 15k
D206 1SS119 G-IK-DET
0.2
R250 2.2k :FPRD
AUTO.I TP212
K
TP204
CN143 4P WHT :S-MICRO
K
NC
GND
GND
TO CB (G) BOARD CN266
R222 3.3k :RN
C216 1 160V
<+100V>
R221 3.3k :RN
D210 1SS119 G-THERM COMP2
65.2
Q209 2SA1381 G-G1 CONT1
Q207 2SC3209 G-IK DET4
R251 560 :FPRD
R252 15k
172.9
-0.8
R253 100k :RN
D208 1SS119 G-IK-DET PROT4
R254 10k
0.1
R256 100
R257 680
D212 1SS119 G-IK-DET PROT6
D211 RD2.0ESB2 G-IK-DET PROT5
G1
TP208
C218 0.01 500V E
R255 100k 1/4W :RN
CN144 4P YEL :S-MICRO
G1 (G)
NC
GND
GND
TO CB (G) BOARD CN261
<+12V>
R225 3.3k
Q210 2SC3209 G-G1 CONT2
64.7
-35.1
11.9
11.3
D215 1SS119 G-OFF SPOT-PROT1
D216 1SS119 G-OFF SPOT-PROT2
4.2
R226 12k :RN
C222 0.01 F
C223 22
R227 2.2k
3.6
Q211 2SA1175 G-G1 CONT3
C219 0.1 :MPS
R258 2.7k :RN
D213 RD13ESB2 G-IK-DET PROT7
<-12V>
+210V
Q212 XDA144ES G-AUTO BKG-SW1
Q213 XDA144ES G-AUTO BKG-SW2
+12V
C225 0.01 F
C226 22
CN145 4P RED :S-MICRO
H (G)
H (G)
NC
NC
TO CB (G) BOARD CN263
Q214 2SC2785 G-IK-DET
R229 100
-0.2
-0.8
GCTL TP213
3.6
R228 10k :RN
11.8
0
R230 18k :RN
D217 1SS119 G-AUTO BKG-SW
R233 6.8k
0.2
0.3
IC204 TL082CP G-AUTO-BKG
4.1 0.5 0.5
R259 22k :RN
IK TP214
R260 1k :RN
C228 0.01 F
C229 4.7 :BP
-12V
D218 1SS119 FAN-STOP PROT
Q218 2SC2785 FAN-STOP2
R239 10k
Q216 2SK523 G-AUTO-BKG
R261 1k
0.5
0.5
0.2
R262 2.2k
C233 0.1 :MPS
-3.4
C234 1
R263 1M
C231 10
C232 0.01 F
Q217 XDC144ES G-AUTO BKG-SW3
B-SS1542<AEP>-CAG
G
T (G))

CAG BOARD


①
1.0 Vp-p(H)
②
5.1 Vp-p(H)
③
136 Vp-p(H)
④
12 Vp-p(H)

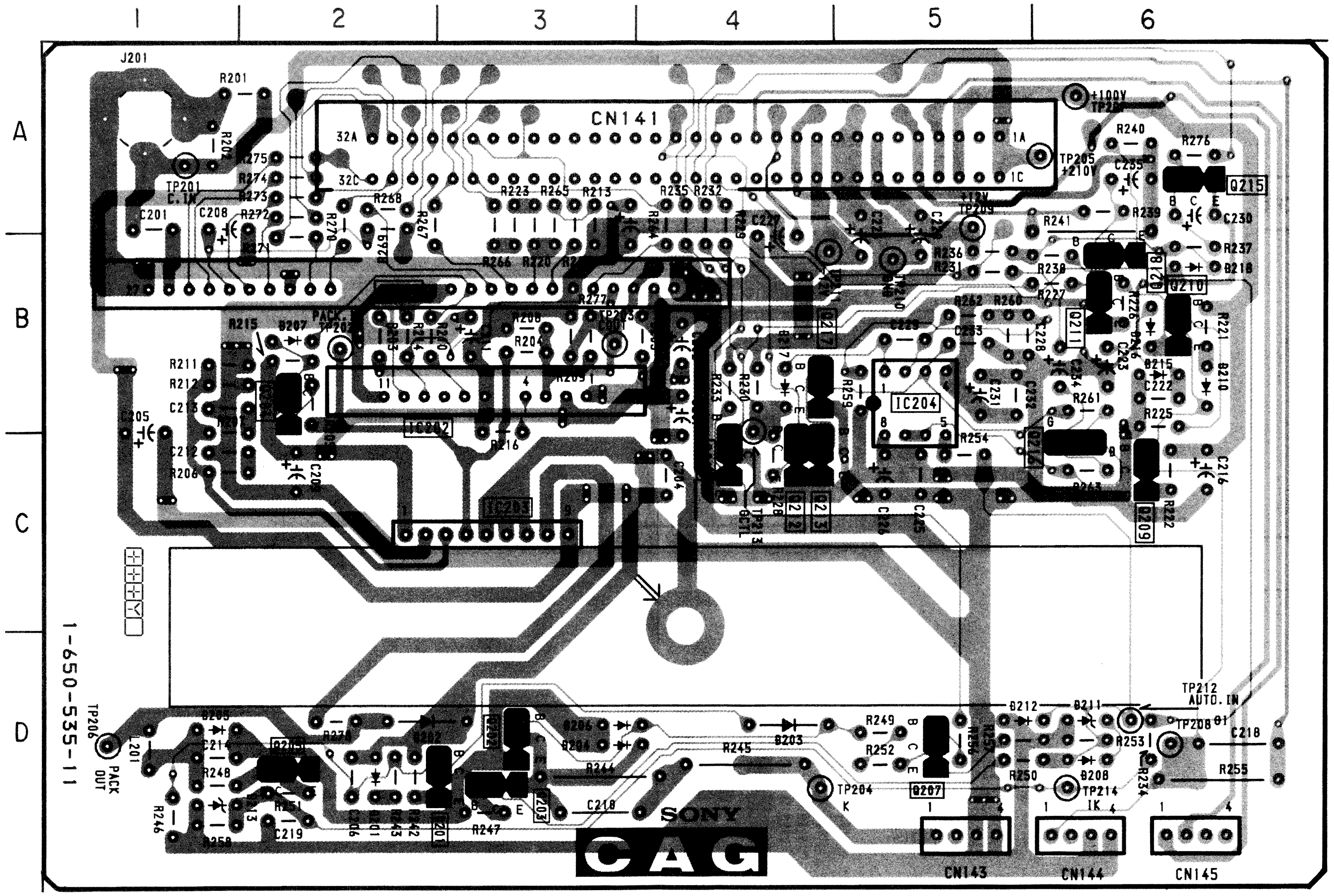
CAG

[VIDEO OUR (G)]

CAG BOARD

IC	
IC201	B-2
IC203	C-3
IC204	B-5
TRANSISTOR	
Q201	D-2
Q202	D-2
Q203	D-2
Q204	B-2
Q205	D-2
Q207	D-5
Q209	C-6
Q210	B-6
Q211	B-6
Q212	C-4
Q213	C-4
Q214	C-6
Q215	A-6
Q216	C-6
Q217	B-4
Q218	B-6
DIODE	
D201	D-2
D202	D-2
D203	D-4
D204	D-3
D205	D-1
D206	D-3
D207	B-2
D208	D-6
D210	B-6
D211	D-6
D212	D-5
D213	D-1
D215	B-6
D216	B-6
D217	B-4
D218	B-6
TEST POINT	
TP201	A-1
TP202	B-2
TP203	B-3
TP204	D-4
TP205	A-6
TP206	D-1
TP207	A-6
TP208	D-6
TP209	A-5
TP210	B-5
TP211	B-4
TP212	D-6
TP213	C-4
TP214	D-6

– CAG BOARD –


1
2
3
4
5
6
A
B
C
D
J201
R201
CN141
32A
1A
32C
1C
TP201 C.IN
TP205 +210V
+100V
TP209
IC201
IC203
IC204
Q215
Q210
Q211
Q209
Q207
TP212 AUTO.IN
TP208
TP204 K
TP214 IK
TP206 PACK OUT
1-650-535-11
SONY
CAG
CN143
CN144
CN145

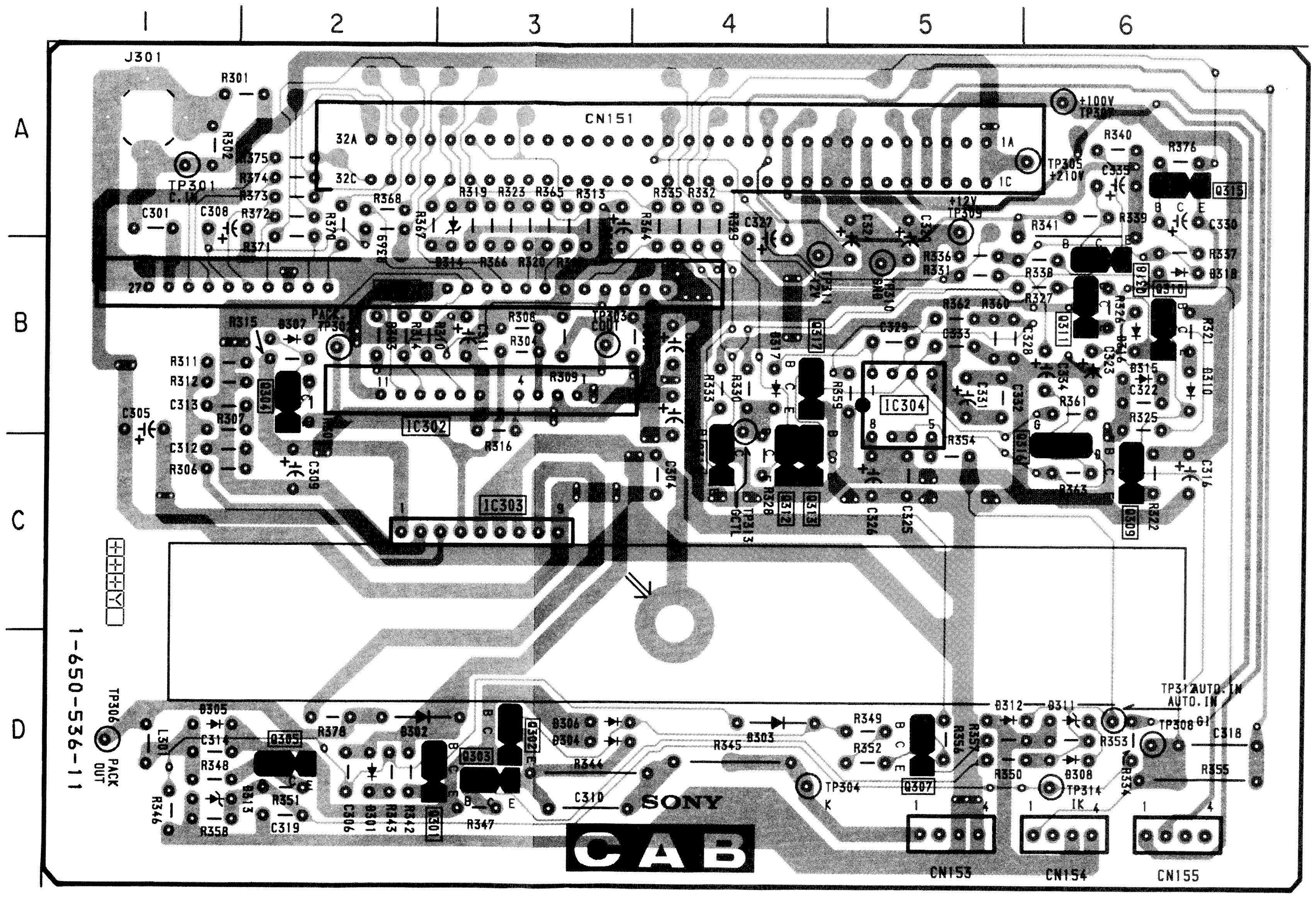
- ▩ : Pattern from the side which enables seeing.
- ■ : Pattern of the rear side.

CAB [VIDEO OUR (B)]

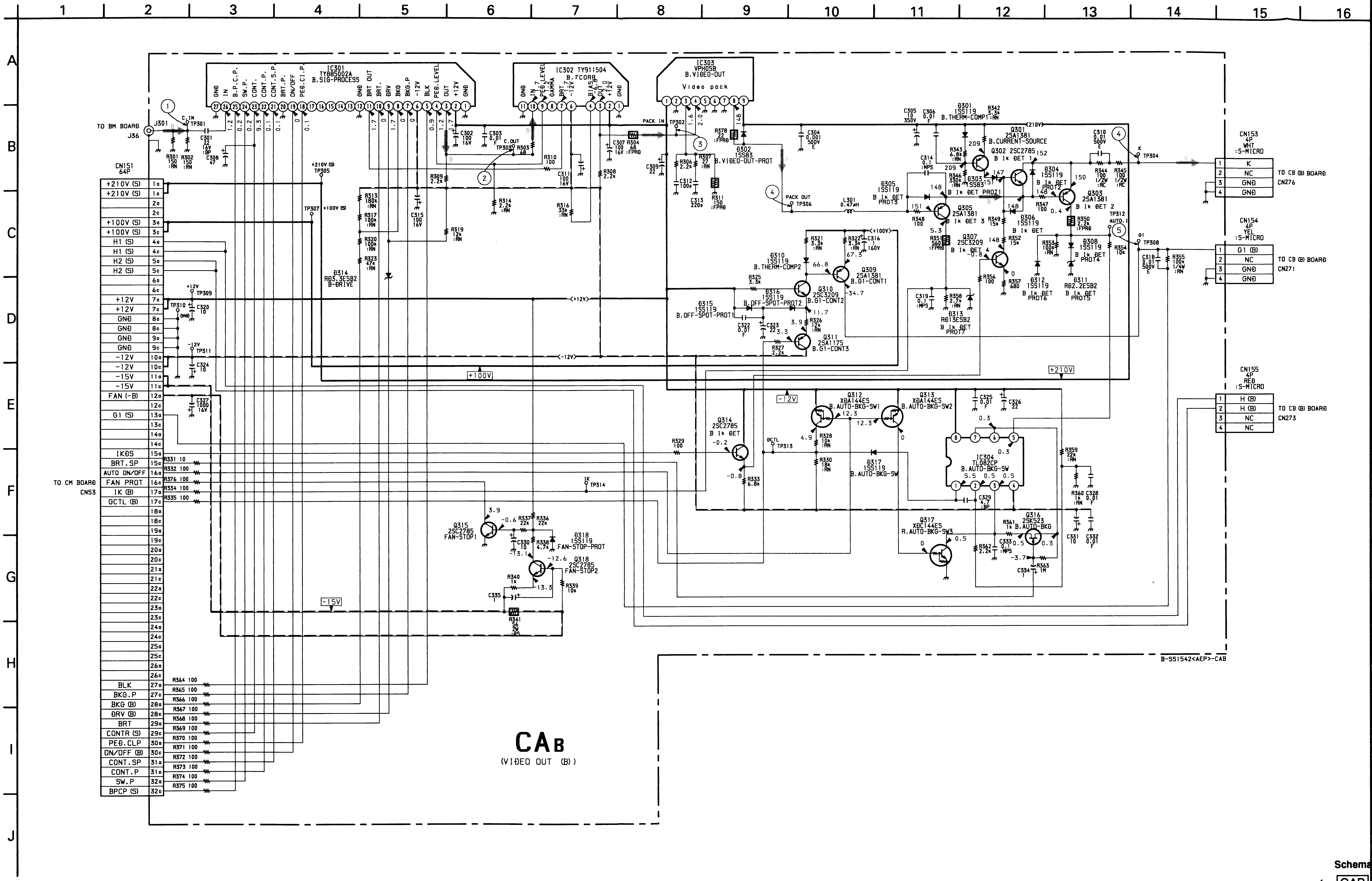
CAB BOARD

IC	
IC301	B-2
IC302	B-2
IC303	C-3
IC304	B-5
TRANSISTOR	
Q301	D-2
Q302	D-3
Q303	D-3
Q304	B-2
Q305	D-2
Q307	D-5
Q309	C-6
Q310	B-6
Q311	B-6
Q312	C-4
Q313	C-4
Q314	C-4
Q315	A-6
Q316	C-6
Q317	B-4
Q318	B-6
DIODE	
D301	D-2
D302	D-2
D303	D-4
D304	D-3
D305	D-1
D306	D-3
D307	B-2
D308	D-6
D310	B-6
D311	D-6
D312	D-5
D313	D-1
D314	B-3
D315	B-6
D316	B-6
D317	B-4
D318	B-6
TEST POINT	
TP301	A-1
TP302	B-2
TP303	B-3
TP304	D-4
TP305	A-6
TP306	D-1
TP307	A-6
TP308	D-6
TP309	A-5
TP310	B-5
TP311	B-4
TP312	D-6
TP313	B-4
TP314	D-6

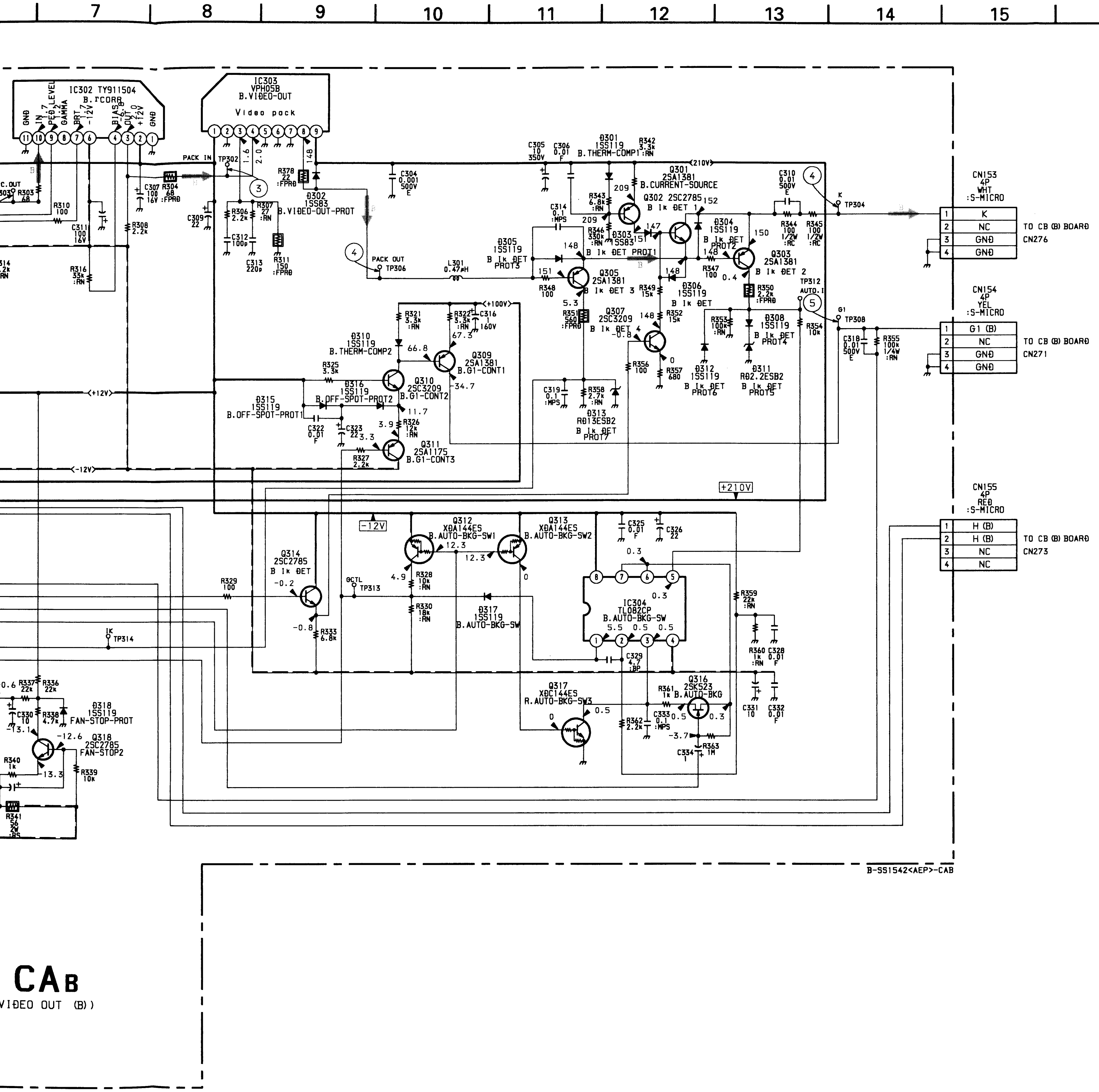
– CAB BOARD –


1
2
3
4
5
6
A
B
C
D
J301
R301
CN151
32A
32C
1A
1C
TP301
C.IN
TP307
+100V
TP305
+210V
+12V
TP309
TP310
TP311
TP302
PACK
TP303
COUT
IC302
IC303
IC304
TP306
PACK OUT
1-650-536-11
TP312
AUTO.IN
TP308
TP304
TP313
TP314
SONY
CAB
CN153
CN154
CN155
Q301
Q302
Q303
Q304
Q305
Q307
Q309
Q310
Q311
Q312
Q313
Q314
Q315
Q316
Q317
Q318

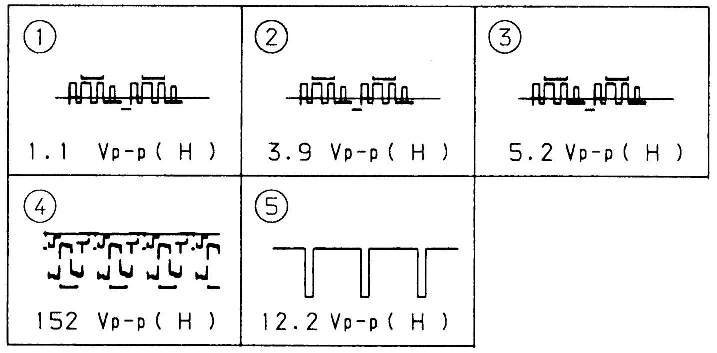
- ▨ : Pattern from the side which enables seeing.
- ▨ : Pattern of the rear side.


CAB
(VIDEO OUT (B))
B-SS1542<AEP>-CAB
IC301 TY885002A B.SIG-PROCESS
IC302 TY911504 B.TCORR
IC303 VPH05B B.VIDEO-OUT
Video pack
IC304 TL082CP B.AUTO-BKG-SW
TO BM BOARD J36
J301
CN151 64P
TO CM BOARD CN53
CN153 4P WHT :S-MICRO
TO CB (B) BOARD CN276
CN154 4P YEL :S-MICRO
TO CB (B) BOARD CN271
CN155 4P RED :S-MICRO
TO CB (B) BOARD CN273
K
NC
GND
G1 (B)
H (B)
+210V (S)
+100V (S)
H1 (S)
H2 (S)
+12V
GND
-12V
-15V
FAN (-B)
G1 (S)
IKDS
BRT.SP
AUTO ON/OFF
FAN PROT
IK (B)
GCTL (B)
BLK
BKG.P
BKG (B)
DRV (B)
BRT
CONTR (S)
PED.CLP
ON/OFF (B)
CONT.SP
CONT.P
SW.P
BPCP (S)
Q301 1SS119 B.THERM-COMP1
Q301 2SA1381 B.CURRENT-SOURCE
Q302 2SC2785
Q302 1SS83 B.VIDEO-OUT-PROT
Q303 2SA1381
Q304 1SS119 B IK DET PROT2
Q305 1SS119 B IK DET PROT3
Q305 2SA1381 B IK DET 3
Q306 1SS119 B IK DET
Q307 2SC3209 B IK DET 4
Q308 1SS119 B IK DET PROT4
Q309 2SA1381 B.G1-CONT1
Q310 1SS119 B.THERM-COMP2
Q310 2SC3209 B.G1-CONT2
Q311 2SA1175 B.G1-CONT3
Q311 RD2.2ESB2 B IK DET PROT5
Q312 XDA144ES B.AUTO-BKG-SW1
Q312 1SS119 B IK DET PROT6
Q313 XDA144ES B.AUTO-BKG-SW2
Q313 RD13ESB2 B IK DET PROT7
Q314 2SC2785 B IK DET
Q314 RD3.3ESB2 B-DRIVE
Q315 1SS119 B.OFF-SPOT-PROT1
Q315 2SC2785 FAN-STOP1
Q316 1SS119 B.OFF-SPOT-PROT2
Q316 2SK523 B.AUTO-BKG
Q317 1SS119 B.AUTO-BKG-SW
Q317 XDC144ES R.AUTO-BKG-SW3
Q318 1SS119 FAN-STOP-PROT
Q318 2SC2785 FAN-STOP2
TP301 TP302 TP303 TP304 TP305 TP306 TP307 TP308 TP309 TP310 TP311 TP312 TP313 TP314
PACK IN
PACK OUT
C.IN
C.OUT
AUTO.I
+100V
+210V
-12V
+12V
-15V

Schema
← CAB

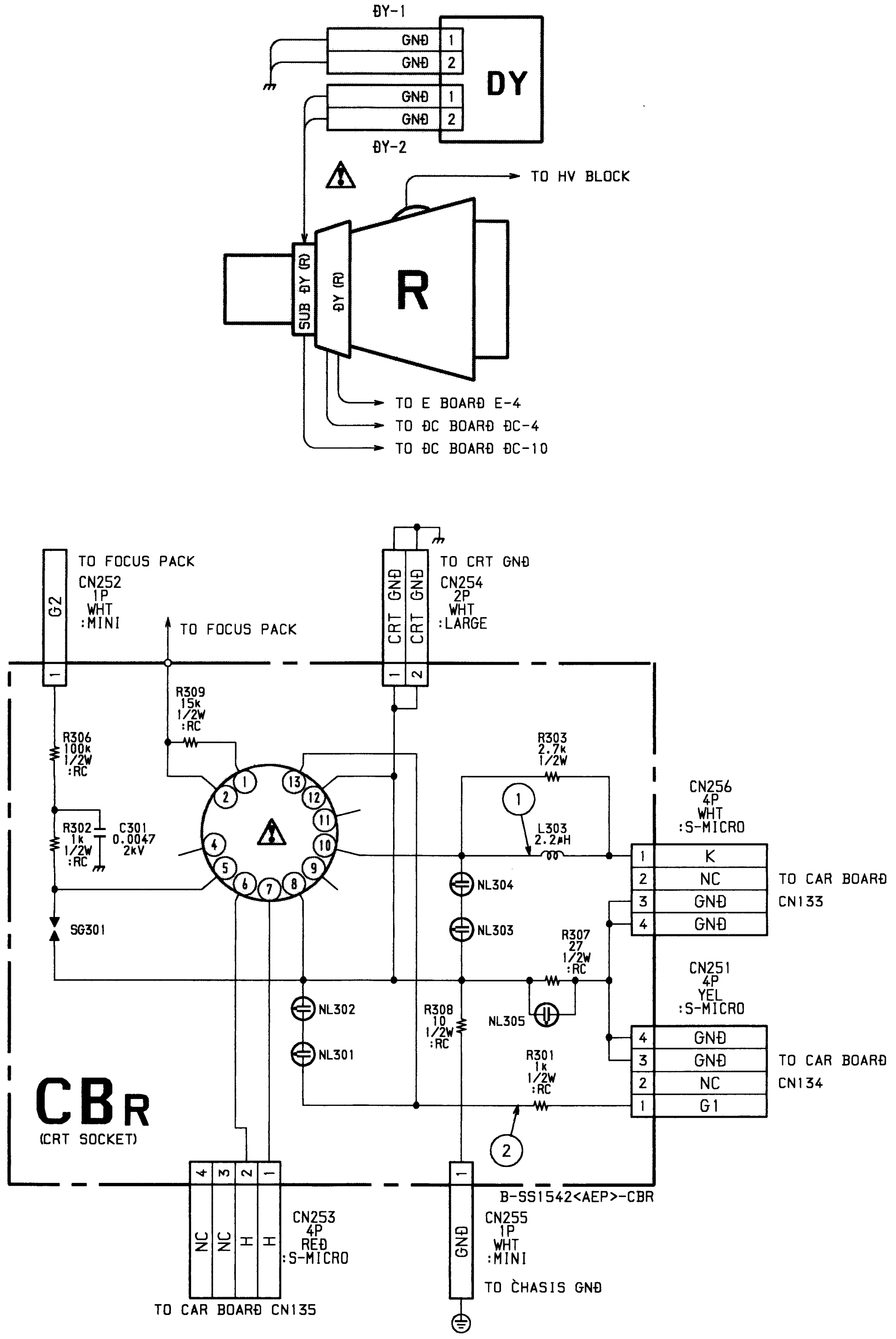

7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
IC302 TY911504
B. rCORR
IC303
VPH05B
B.VIDEO-OUT
Video pack
PACK IN
TP302
R378 22 :FPRD
D302 1SS83
B.VIDEO-OUT-PROT
C304 0.001 500V
C305 10 350V
C306 0.01
D301 1SS119
B.THERM-COMP1
R342 3.3k :RN
Q301 2SA1381
B.CURRENT-SOURCE
Q302 2SC2785
B Ik DET 1
<210V>
C310 0.01 500V
K
TP304
R344 100 1/2W :RC
R345 100 1/2W :RC
D304 1SS119
B Ik DET PROT2
Q303 2SA1381
B Ik DET 2
TP312 AUTO. I
D303 1SS83
B Ik DET PROT1
D305 1SS119
B Ik DET PROT3
Q305 2SA1381
B Ik DET 3
PACK OUT
TP306
L301 0.47μH
D306 1SS119
B Ik DET
Q307 2SC3209
B Ik DET 4
D308 1SS119
B Ik DET PROT4
D312 1SS119
B Ik DET PROT6
D311 RD2.2ESB2
B Ik DET PROT5
G1
TP308
C318 0.01 500V
R355 100k 1/4W :RN
D313 RD13ESB2
B Ik DET PROT7
D310 1SS119
B.THERM-COMP2
Q309 2SA1381
B.G1-CONT1
Q310 2SC3209
B.G1-CONT2
D315 1SS119
B.OFF-SPOT-PROT1
D316 1SS119
B.OFF-SPOT-PROT2
Q311 2SA1175
B.G1-CONT3
<+100V>
<+12V>
<-12V>
+210V
-12V
Q312 XDA144ES
B.AUTO-BKG-SW1
Q313 XDA144ES
B.AUTO-BKG-SW2
Q314 2SC2785
B Ik DET
OCTL
TP313
D317 1SS119
B.AUTO-BKG-SW
IC304 TL082CP
B.AUTO-BKG-SW
Q317 XDC144ES
R.AUTO-BKG-SW3
Q316 2SK523
B.AUTO-BKG
Ik
TP314
D318 1SS119
FAN-STOP-PROT
Q318 2SC2785
FAN-STOP2
CN153 4P WHT :S-MICRO
1 K
2 NC
3 GND
4 GND
TO CB (B) BOARD CN276
CN154 4P YEL :S-MICRO
1 G1 (B)
2 NC
3 GND
4 GND
TO CB (B) BOARD CN271
CN155 4P RED :S-MICRO
1 H (B)
2 H (B)
3 NC
4 NC
TO CB (B) BOARD CN273
B-SS1542<AEP>-CAB
CAB
VIDEO OUT (B))

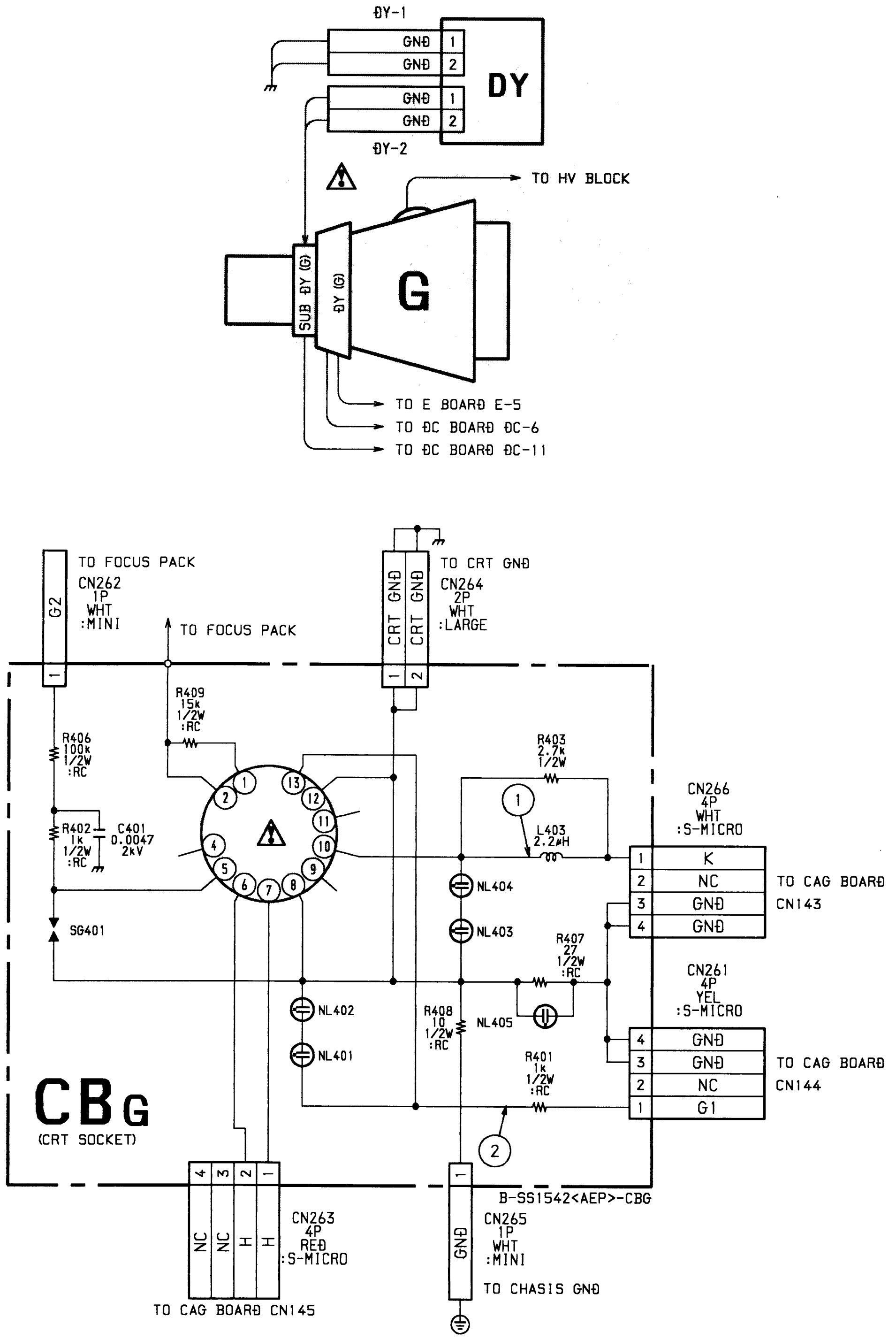
CAB BOARD

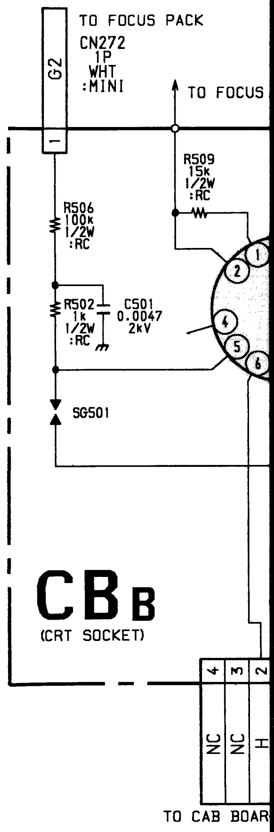

①
1.1 Vp-p (H)
②
3.9 Vp-p (H)
③
5.2 Vp-p (H)
④
152 Vp-p (H)
⑤
12.2 Vp-p (H)

Schematic diagram
← CAB board

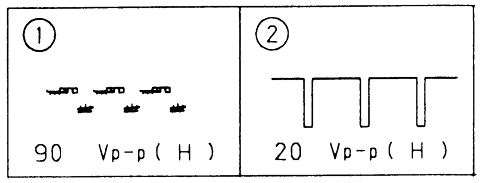
Schematic diagrams
CBB, CBG, CBR boards →


DY-1
GND 1
GND 2
DY
GND 1
GND 2
DY-2
TO HV BLOCK
SUB DY (R)
DY (R)
R
TO E BOARD E-4
TO DC BOARD DC-4
TO DC BOARD DC-10
G2
TO FOCUS PACK
CN252 1P WHT :MINI
TO FOCUS PACK
CRT GND
CRT GND
TO CRT GND
CN254 2P WHT :LARGE
R309 15k 1/2W :RC
R306 100k 1/2W :RC
R302 1k 1/2W :RC
C301 0.0047 2kV
SG301
R303 2.7k 1/2W
L303 2.2µH
CN256 4P WHT :S-MICRO
K
NC
GND
GND
TO CAR BOARD CN133
NL304
NL303
R307 27 1/2W :RC
CN251 4P YEL :S-MICRO
NL305
R308 10 1/2W :RC
GND
GND
NC
G1
TO CAR BOARD CN134
NL302
NL301
R301 1k 1/2W :RC
CBR
(CRT SOCKET)
NC
NC
H
H
CN253 4P RED :S-MICRO
TO CAR BOARD CN135
B-SS1542<AEP>-CBR
GND
CN255 1P WHT :MINI
TO CHASIS GND

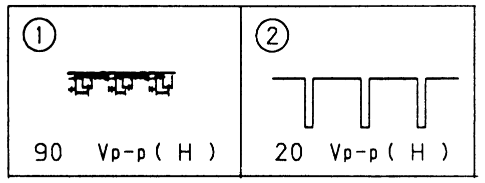

DY-1
GND 1
GND 2
DY
GND 1
GND 2
DY-2
TO HV BLOCK
SUB DY (G)
DY (G)
G
TO E BOARD E-5
TO DC BOARD DC-6
TO DC BOARD DC-11
G2
TO FOCUS PACK
CN262 1P WHT :MINI
TO FOCUS PACK
CRT GND
CRT GND
TO CRT GND
CN264 2P WHT :LARGE
R409 15k 1/2W :RC
R406 100k 1/2W :RC
R402 1k 1/2W :RC
C401 0.0047 2kV
SG401
R403 2.7k 1/2W
L403 2.2µH
CN266 4P WHT :S-MICRO
K
NC
GND
GND
TO CAG BOARD CN143
NL404
NL403
R407 27 1/2W :RC
CN261 4P YEL :S-MICRO
NL405
R408 10 1/2W :RC
GND
GND
NC
G1
TO CAG BOARD CN144
NL402
NL401
R401 1k 1/2W :RC
CBG
(CRT SOCKET)
NC
NC
H
H
CN263 4P RED :S-MICRO
TO CAG BOARD CN145
B-SS1542<AEP>-CBG
GND
CN265 1P WHT :MINI
TO CHASIS GND

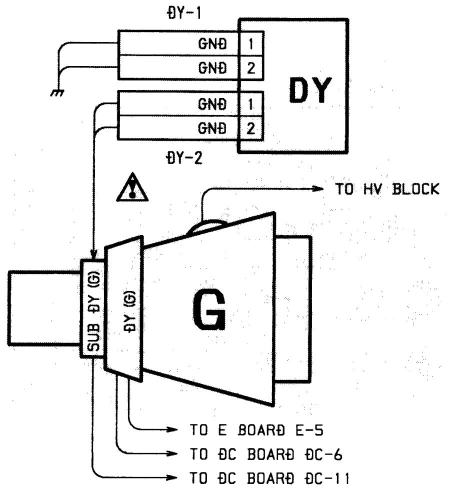

TO FOCUS PACK
CN272 1P WHT :MINI
G2
TO FOCUS
R509 15k 1/2W :RC
R506 100k 1/2W :RC
R502 1k 1/2W :RC
C501 0.0047 2kV
SG501
CBB
(CRT SOCKET)
NC
NC
H
TO CAB BOAR

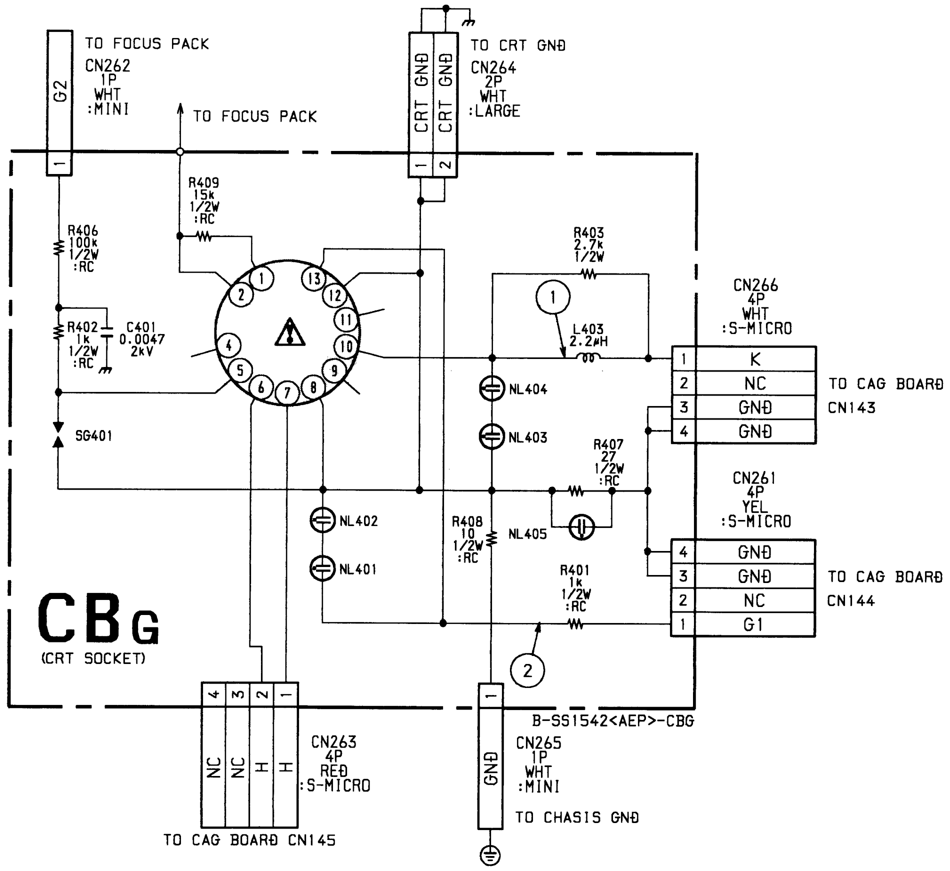
CBR BOARD



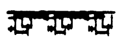
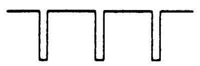
CBG BOARD

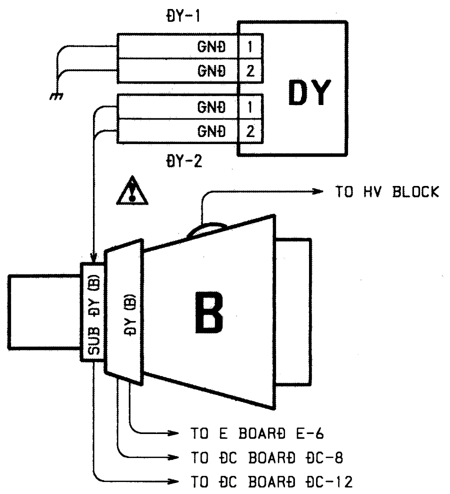


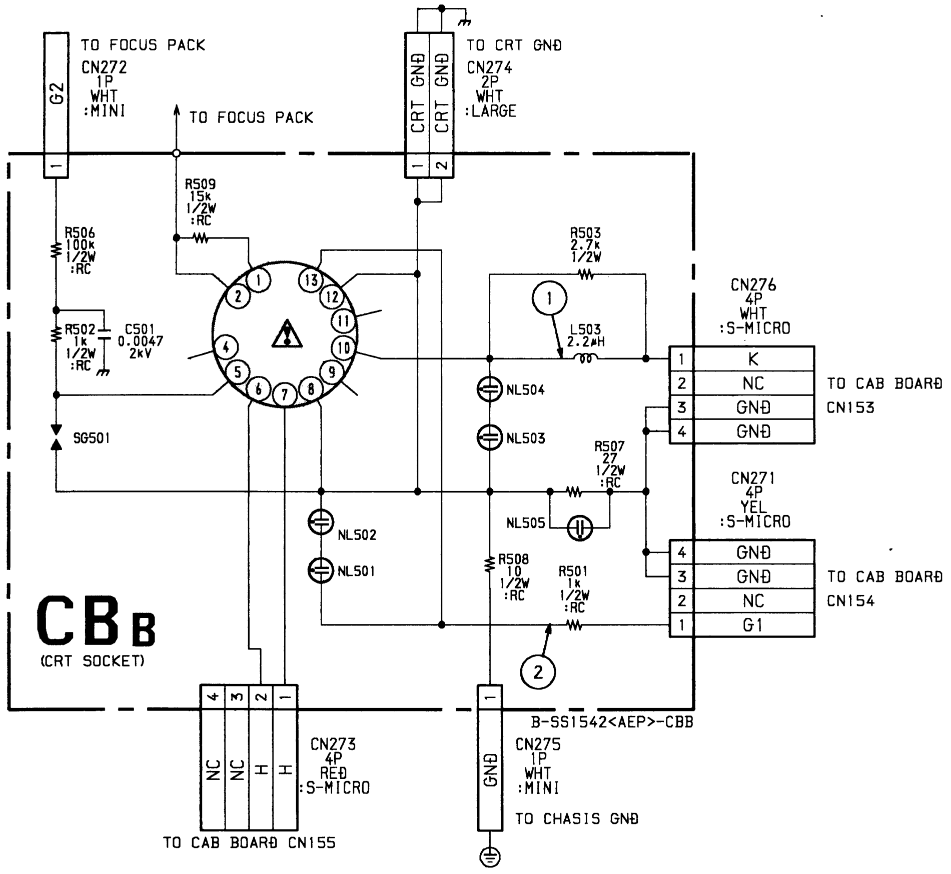

ĐY-1
GNĐ 1
GNĐ 2
DY
GNĐ 1
GNĐ 2
ĐY-2
TO HV BLOCK
SUB ĐY (G)
ĐY (G)
G
TO E BOARĐ E-5
TO ĐC BOARĐ ĐC-6
TO ĐC BOARĐ ĐC-11


G2
TO FOCUS PACK
CN262
1P
WHT
:MINI
TO FOCUS PACK
CRT GNĐ
CRT GNĐ
TO CRT GNĐ
CN264
2P
WHT
:LARGE
R409
15k
1/2W
:RC
R406
100k
1/2W
:RC
R402
1k
1/2W
:RC
C401
0.0047
2kV
SG401
R403
2.7k
1/2W
①
L403
2.2µH
CN266
4P
WHT
:S-MICRO
K
NC
GNĐ
GNĐ
TO CAG BOARĐ
CN143
NL404
NL403
R407
27
1/2W
:RC
CN261
4P
YEL
:S-MICRO
NL402
NL401
R408
10
1/2W
:RC
NL405
R401
1k
1/2W
:RC
GNĐ
GNĐ
NC
G1
TO CAG BOARĐ
CN144
②
CBG
(CRT SOCKET)
NC
NC
H
H
CN263
4P
REĐ
:S-MICRO
TO CAG BOARĐ CN145
GNĐ
CN265
1P
WHT
:MINI
TO CHASIS GNĐ
B-SS1542<AEP>-CBG

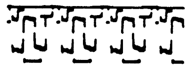
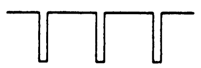
CBG BOARD

①  90 Vp-p (H)	②  20 Vp-p (H)


ĐY-1
GNĐ 1
GNĐ 2
DY
GNĐ 1
GNĐ 2
ĐY-2
TO HV BLOCK
SUB ĐY (B)
ĐY (B)
B
TO E BOARĐ E-6
TO ĐC BOARĐ ĐC-8
TO ĐC BOARĐ ĐC-12


G2
TO FOCUS PACK
CN272
1P
WHT
:MINI
TO FOCUS PACK
CRT GNĐ
CRT GNĐ
TO CRT GNĐ
CN274
2P
WHT
:LARGE
R509
15k
1/2W
:RC
R506
100k
1/2W
:RC
R502
1k
1/2W
:RC
C501
0.0047
2kV
SG501
R503
2.7k
1/2W
①
L503
2.2µH
CN276
4P
WHT
:S-MICRO
K
NC
GNĐ
GNĐ
TO CAB BOARĐ
CN153
NL504
NL503
R507
27
1/2W
:RC
CN271
4P
YEL
:S-MICRO
NL502
NL501
R508
10
1/2W
:RC
NL505
R501
1k
1/2W
:RC
GNĐ
GNĐ
NC
G1
TO CAB BOARĐ
CN154
②
CBB
(CRT SOCKET)
NC
NC
H
H
CN273
4P
REĐ
:S-MICRO
TO CAB BOARĐ CN155
GNĐ
CN275
1P
WHT
:MINI
TO CHASIS GNĐ
B-SS1542<AEP>-CBB

CBB BOARD

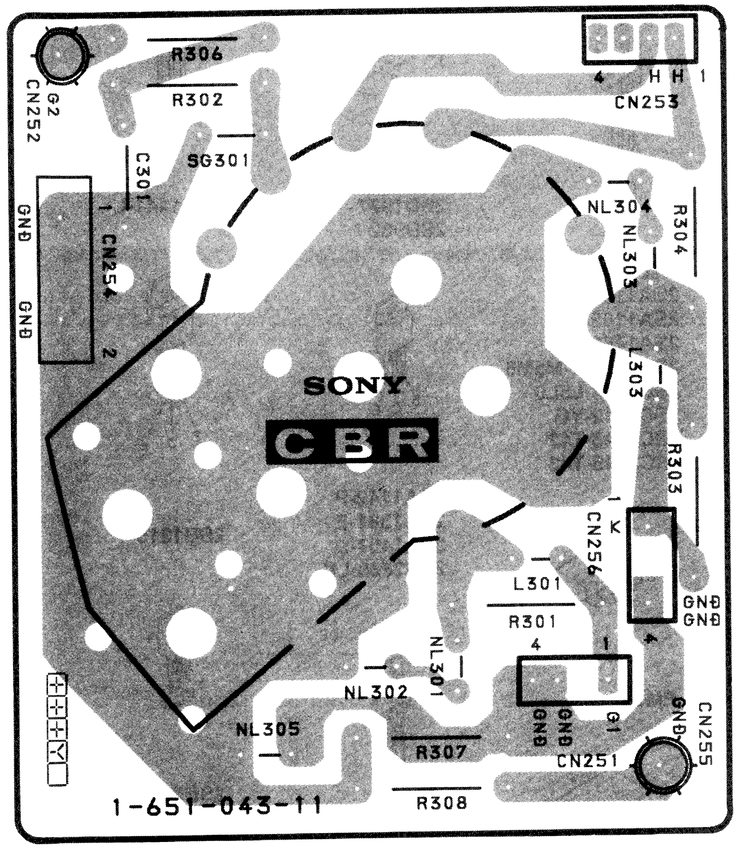
①  150 Vp-p (H)	②  20 Vp-p (H)

CBR [CRT SOCKET]

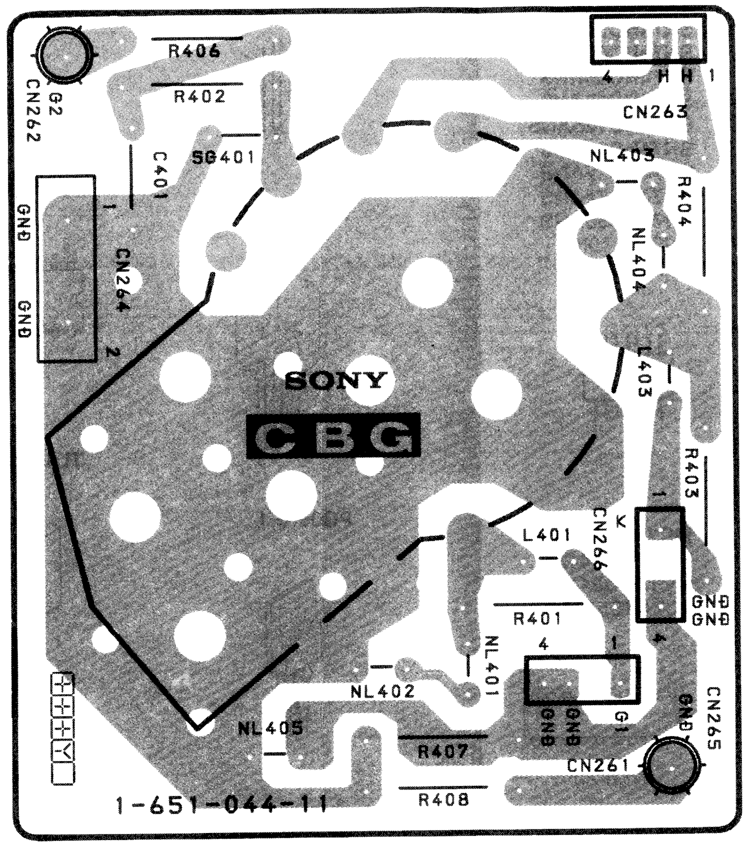
CBG [CRT SOCKET]

CBB [CRT SOCKET]

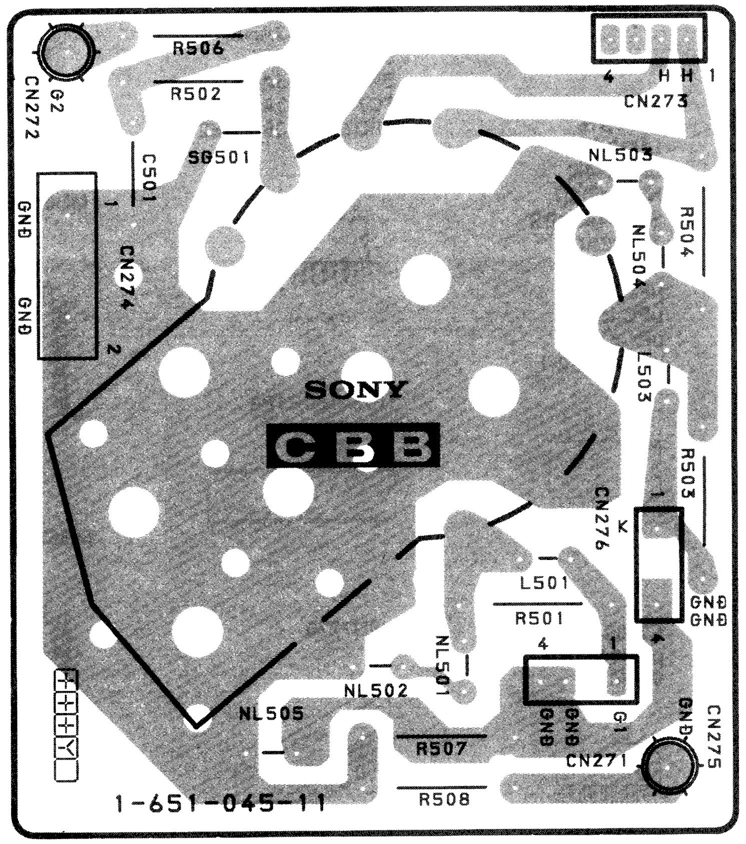
– CBR BOARD –


R306
R302
CN252
G2
C301
SG301
4
H
H
1
CN253
NL304
NL303
R304
GND
GND
1
CN254
2
SONY
CBR
L303
R303
1
K
CN256
4
GND
GND
L301
R301
4
1
NL301
NL302
NL305
GND
GND
G1
R307
CN251
GND
CN255
R308
1-651-043-11

– CBG BOARD –

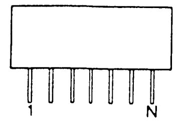

R406
R402
CN262
G2
C401
SG401
4
H
H
1
CN263
NL403
R404
NL404
GND
GND
1
CN264
2
SONY
CBG
L403
R403
1
K
CN266
L401
R401
4
GND
GND
4
1
NL401
NL402
NL405
GND
GND
G1
R407
CN261
GND
CN265
R408
1-651-044-11

– CBB BOARD –


R506
R502
CN272
G2
C501
SG501
4
H
H
1
CN273
NL503
R504
NL504
GND
GND
1
CN274
2
SONY
CBB
L503
R503
1
K
CN276
4
GND
GND
L501
R501
4
1
NL501
NL502
NL505
GND
GND
G1
R507
CN271
GND
CN275
R508
1-651-045-11

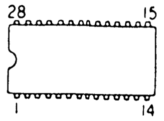
7-5. SEMICONDUCTORS

BX-6473
BX-6474
BX6589
BX7913A
MC-8638
MC-8639A
TY885002A
TY911504



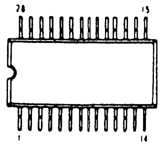
MARKING SIDE VIEW

CXA1216P
M27C512-15F1
TDA4555/V1



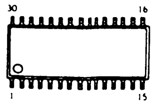
(Top view)

CXA1470AM
CXK3864-040M
CXK3864-041M
CXK3864-042M
CXK5864CM-10LL
LC3564SM-10



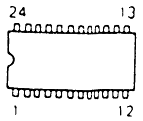
(TOP VIEW)

CXA1726AM



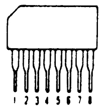
TOP VIEW

CXK5814P-45L
MC74HC126AF

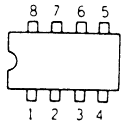


(Top view)

CX23065A

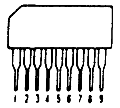


CX-7916
LM393P
LM6364N
NJM2903D
SN75453BPS
TL082ACP
TL082CP
μPC393C
μPC4558C
μPC814C
μPC814G2-1

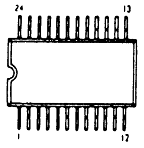


(Top view)

CX-894
μPC1406HA
VPH05B

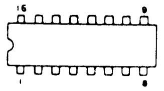


DAC8840FS
HD74HC00FPEL



(TOP VIEW)

GL-6P202
HD10124
HD14538BFP
HD14538BP
MB675429
MC10124L
MC14040BCP
MC14495P1
MC14572UBCP
MC34051P
MC74HC4538AN
SN74S124N
TC4040BP
μPD74HC138C



(TOP VIEW)

HD14053BFP
MC14053BF-T2
MC74HC157AF
MC74HC4053F
SN74HC138ANS
SN74HC157ANS
SN74HC163AF
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SN74HC165AF
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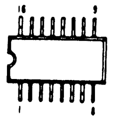
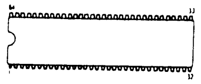
TC74HC123AF
μPD74HC238GS-E2



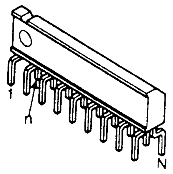
(TOP VIEW)

HD64180R1P8

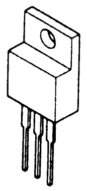


(Top view)

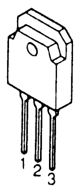
H8D7276



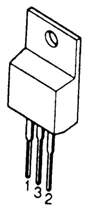
LM2940CT-5.0
LM7812CT
NJM7812FA
TA7812S
μPC2405HF



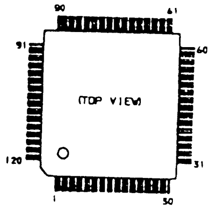
LM2990T-5.0



LM7912CT
NJM7912FA



MB605E66


90
61
91
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(TOP VIEW)
120
31
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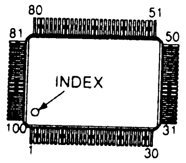
50

MB670840PF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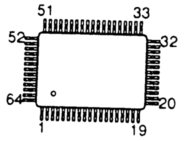
MB654842UPF
MB671469PF


51
33
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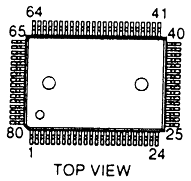
64
20
1
19

TOP VIEW

MB8855-1314N


64
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80
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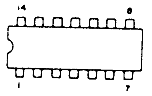
24

TOP VIEW

MC14001BCP
MC14011BCP
MC1495L
TC74HC107AP
μPC1394C
μPD4011BC



(TOP VIEW)

MC14066BF
MC74F00M
MC74HC00AF
MC74HC00AN
MC74HC132AF
MC74HC14AF
MC74HC4066F
SN74HC00AN
SN74HC00ANS
SN74HC04ANS
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SN74HC126ANS
SN74HC14ANS
SN74HC32ANS
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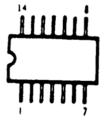
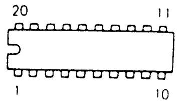
SN74HC86ANS
SN74LS10NS
TC74HC86AF



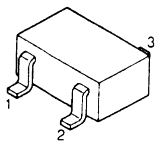
(TOP VIEW)

MC74HC244AN
MC74HC541AF
MC74HC541F
TC74HC541AP



(Top view)

MN1382S



NJM2228M
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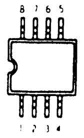
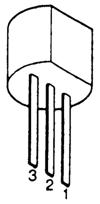
μPC4558G2

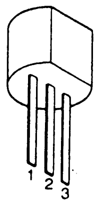


(TOP VIEW)

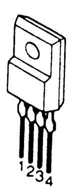
NJM78L05A
NJM78L09A
TA78L09S



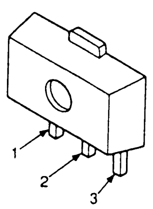
NJM79L12A



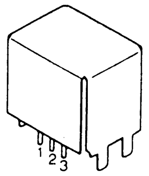
PQ05RF1



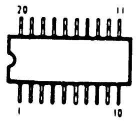
RH5VA43AA
RH5VA43CA
S-80743AL-A7-S



SBX-1610-09
SBX-1810-09

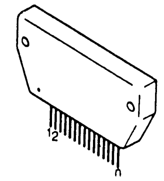


SN74HC244ANS
SN74HC374ANS



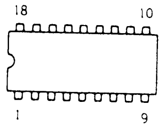
(TOP VIEW)

STK4122MK2



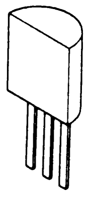
MARKING SIDE VIEW

TDA4546



(Top view)

TL431CLP



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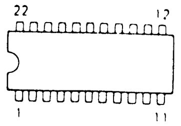

(Top view)

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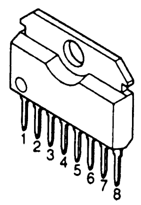

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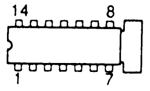

TOP VIEW

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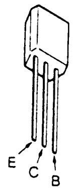
DTC144ES
XDA144ES
XDC114ES
XDC144ES



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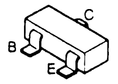
2SA812-T1-M5M6
2SC1623-L5L6
2SC2712-YG
2SC3545-T42
2SC3545-T43



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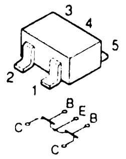
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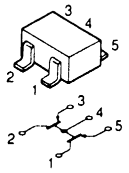
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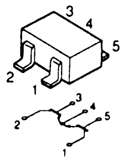
FMW5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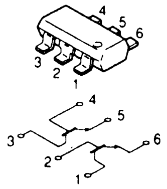
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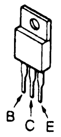

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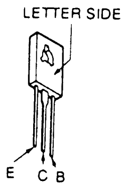
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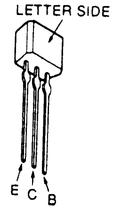
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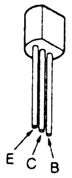

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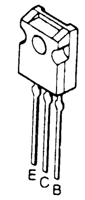

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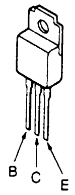

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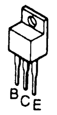

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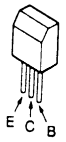

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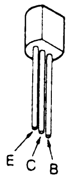

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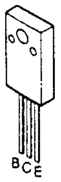

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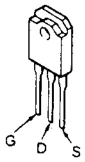

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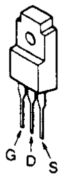

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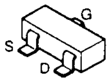

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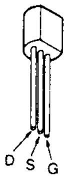

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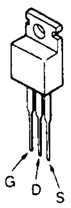

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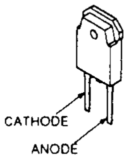
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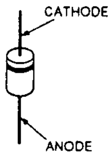
RU-1
RU-1C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RD3.3ESB2
RD5.1ESB2
RD6.8ESB2
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RD13ESB2
RD15ESB2
RD20ESB2
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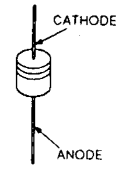
RD39ESB2
1SS119-25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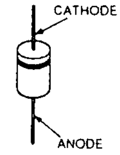
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ERC38-06
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V09G
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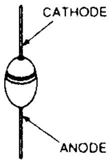
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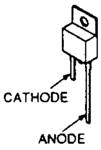
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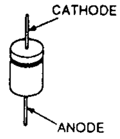
CATHODE
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RD3.3M-B2
RD4.3M-B1
RD5.1M-B2
RD6.2M-B1
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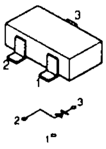
RD12M-B2
RD13M-B2



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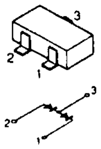

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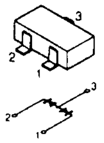

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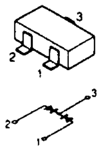

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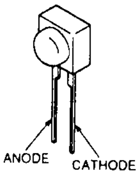
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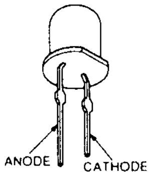

ANODE
CATHODE

SECTION 8
EXPLODED VIEWS

The componants identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

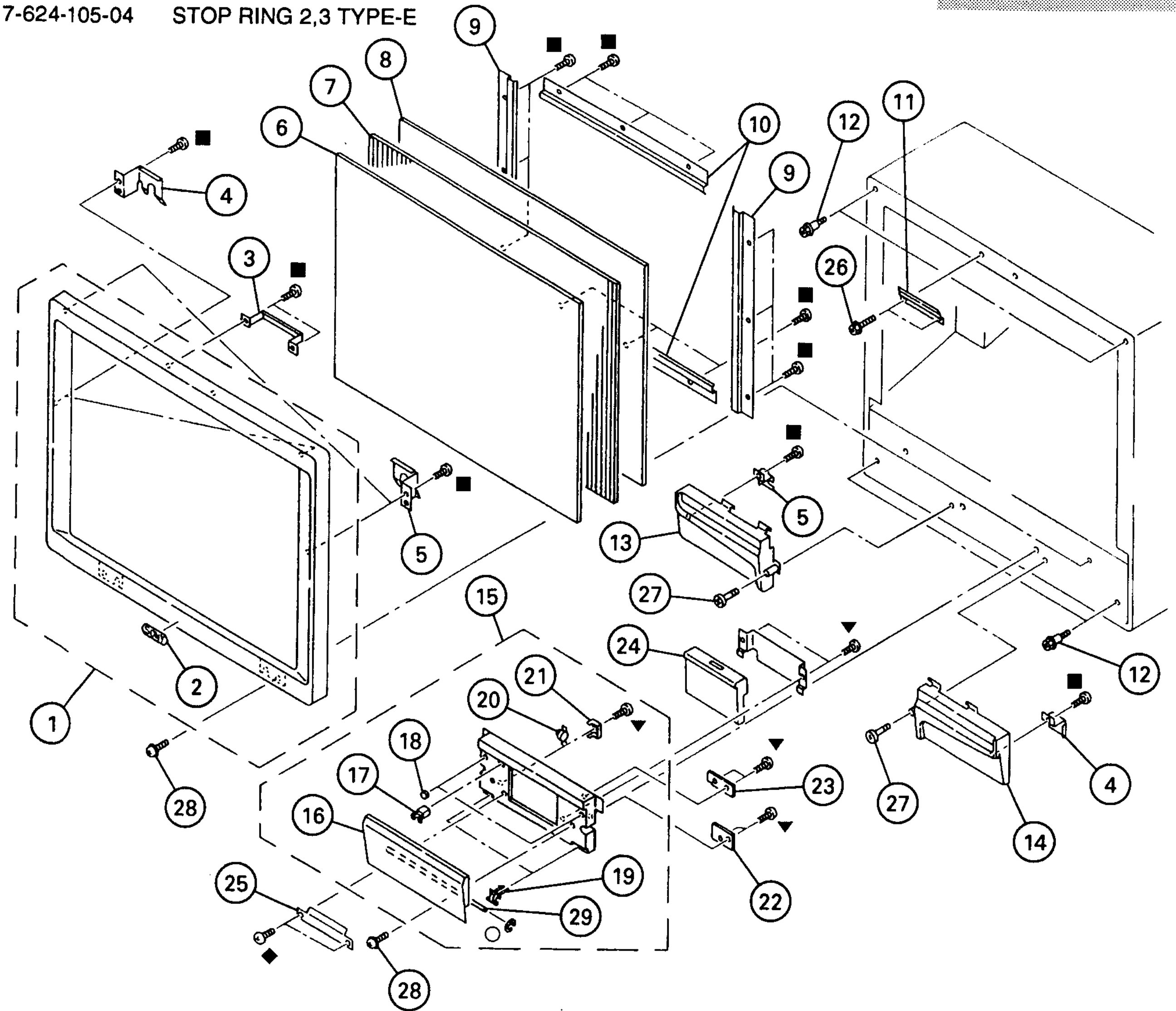
Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie.

NOTE:

- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

8-1. SCREEN AND CONTROL BLOCK

▼	7-685-646-79	+BVTP 3X8
◆	7-682-550-09	+B 3X12
■	7-685-661-79	+BVTP 4X12
○	7-624-105-04	STOP RING 2,3 TYPE-E



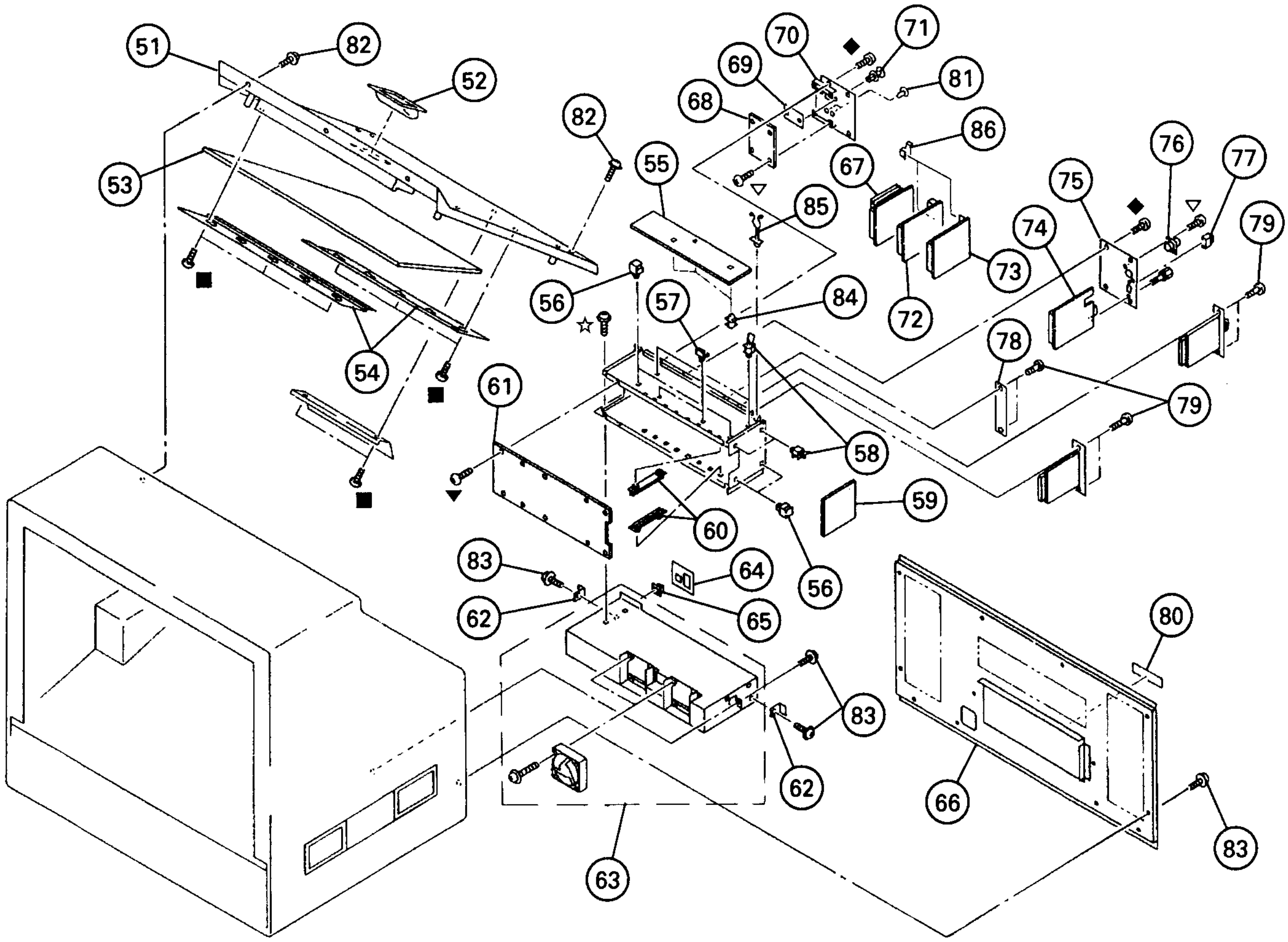
REF. NO.	PART NO.	DESCRIPTION	REMARK
1	X-4031-845-2	FRAME ASSY, SCREEN	2
2	4-381-079-01	EMBLEM (NO.10), SONY	
3	* 4-044-534-01	HOLDER, FRAME	
4	* 4-044-535-01	HOLDER (A), FRAME	
5	* 4-044-536-01	HOLDER (B), FRAME	
6	4-044-525-11	FILTER, SCREEN	
7	4-044-526-11	ILLUMINATOR (L)	
8	4-044-527-11	ILLUMINATOR (F)	
9	* 4-044-514-01	BRACKET (L)	
10	* 4-044-528-01	BRACKET (LL)	
11	* 4-044-517-01	BRACKET (S)	
12	4-044-533-01	SCREW, SUPPORTING	
13	4-044-590-01	COVER (R), FRONT	
14	4-044-589-01	COVER (L), FRONT	
15	X-4033-563-1	PANEL ASSY (AEP), CONTROL (RVP-4015QM)	16-21,29
15	X-4033-566-1	PANEL ASSY, CONTROL (RVP-4015Q)	16-21,29
16	4-044-591-02	DOOR, FRONT	
17	4-392-036-01	CATCHER, PUSH	
18	4-314-871-00	CUSHION	
19	4-053-600-01	BEARING, LID	
20	3-721-204-21	DAMPER	
21	4-397-047-01	HOLDER, DAMPER	
22	* A-1390-397-A	NB BOARD, COMPLETE	
23	* A-1390-396-A	NA BOARD, COMPLETE	
24	1-467-711-21	REMOTE COMMANDER (RM-PJ4010) (SET SIDE)	
25	* 4-396-950-11	COVER, SWITCH	
26	4-378-522-51	SCREW, TAPPING, HEXAGON HEAD	
27	4-046-423-01	SCREW (+B M4X25)	
28	3-701-810-81	SCREW, TERMINAL	
29	4-053-601-01	SHAFT, LID	

8-2. MIRROR COVER AND POWER BLOCK

▼	7-685-646-79	+BVTP 3X8
◆	7-682-550-09	+B 3X12
■	7-685-661-79	+BVTP 4X12
▽	7-685-647-79	+BVTP 3X10
☆	7-682-660-09	+PS 4X6

The componants identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie.

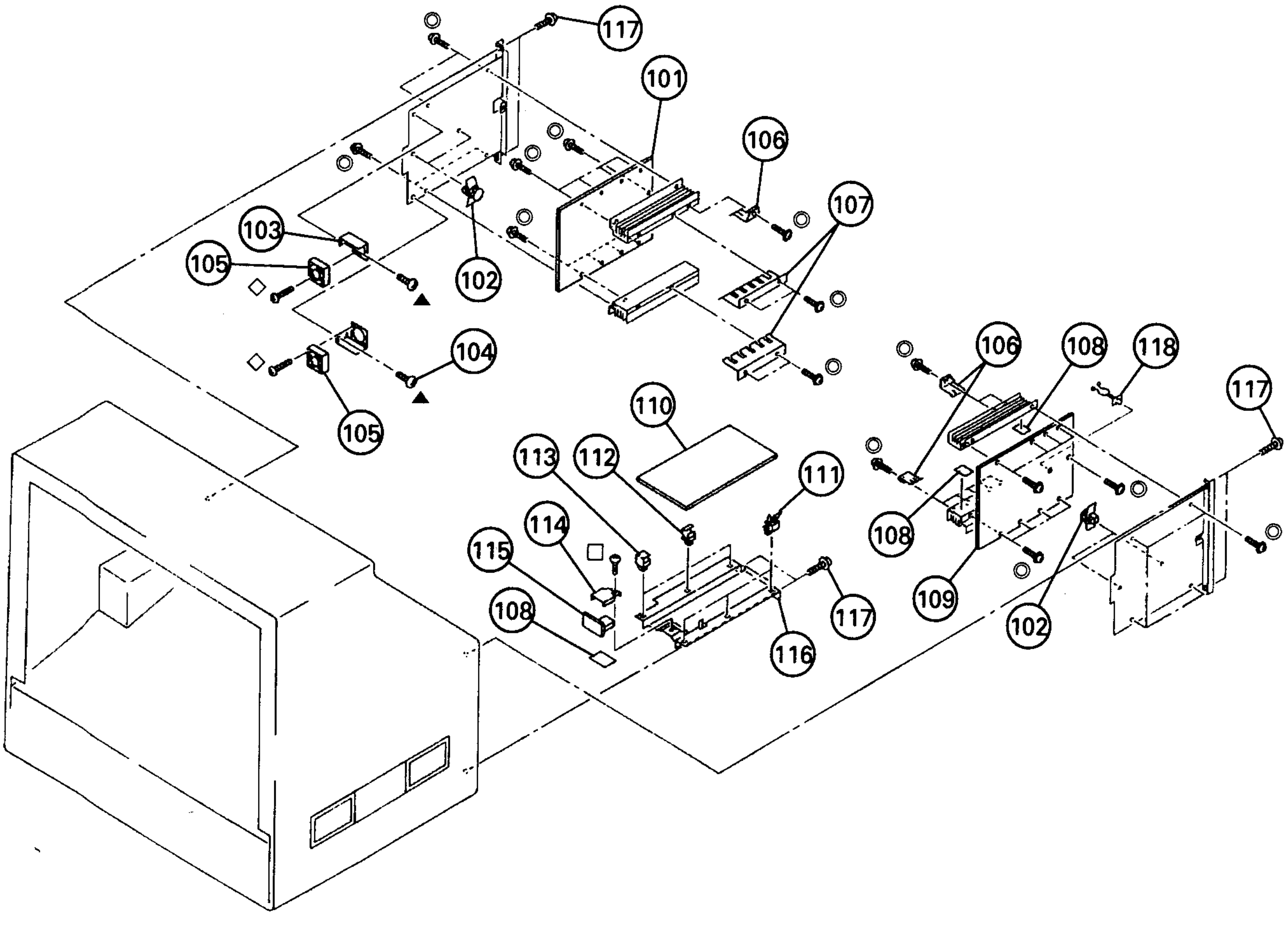


REF. NO.	PART NO.	DESCRIPTION	REMARK
51	* 4-044-580-01	COVER, MIRROR	
52	4-382-597-81	HANDLE	
53	4-044-516-01	MIRROR (U)	
54	* 4-044-514-01	BRACKET (L)	
55	* A-1311-359-A	G BOARD, COMPLETE	
56	* 3-701-903-11	HOLDER, PC BOARD	
57	* 3-659-682-00	HOLDER, PC BOARD	
58	* 3-703-141-00	HOLDER, PCB	
59	* A-1380-466-A	K BOARD, COMPLETE	
60	* 4-360-309-11	SUPPORT, PC BOARD	
61	* A-1292-492-A	AM BOARD, COMPLETE	
62	* 4-044-543-01	HOLDER, BACK COVER	
63	⚠ 1-413-934-12	REGULATOR, SWITCHING (SOPS-1047) (RVP-4015Q)	
63	⚠ 1-413-935-12	REGULATOR, SWITCHING (SOPS-1074) (RVP-4015QM)	
64	* 4-042-969-01	PLATE, POWER	
65	4-362-811-00	BUTTON, MAIN POWER	
66	* X-4031-848-1	COVER ASSY, BACK	
67	* A-1385-158-A	KA BOARD, COMPLETE	

REF. NO.	PART NO.	DESCRIPTION	REMARK
68	* A-1385-159-A	KB BOARD, COMPLETE	
69	4-044-550-01	COVER, PANEL	
70	4-044-578-01	PANEL (B)	
71	4-374-303-01	RIVET, NYLON	
72	* A-1297-210-A	AB BOARD, COMPLETE	
73	* A-1297-209-A	AA BOARD, COMPLETE	
74	* A-1297-211-A	AC BOARD, COMPLETE	
75	4-044-574-01	PANEL (A)	
76	1-575-092-11	CONNECTOR ASSY, MULTI 14P	
77	* 3-673-948-11	CAP, DUST	
78	4-035-771-01	PLATE, BLIND	
79	4-396-203-01	SCREW (+B M3X12), PREVENTION	
80	* 4-044-551-01	LABEL	
81	3-728-267-01	COVER, 3.5 JACK	
82	3-701-810-91	SCREW, TERMINAL	
83	3-701-810-81	SCREW, TERMINAL	
84	* 4-382-848-01	HOLDER, PCB	
85	9-910-999-33	PURSE LOCK (DIA.15)	
86	* 4-046-127-01	SPRING (AB), GROUND	

8-3. DC AND E BLOCK

▲ 7-685-659-79 +BVTP 4X8
◇ 7-685-651-79 +BVTP 3X20
□ 7-682-548-04 +P 3X8
◎ 7-682-549-04 SCREW, TERMINAL 3X10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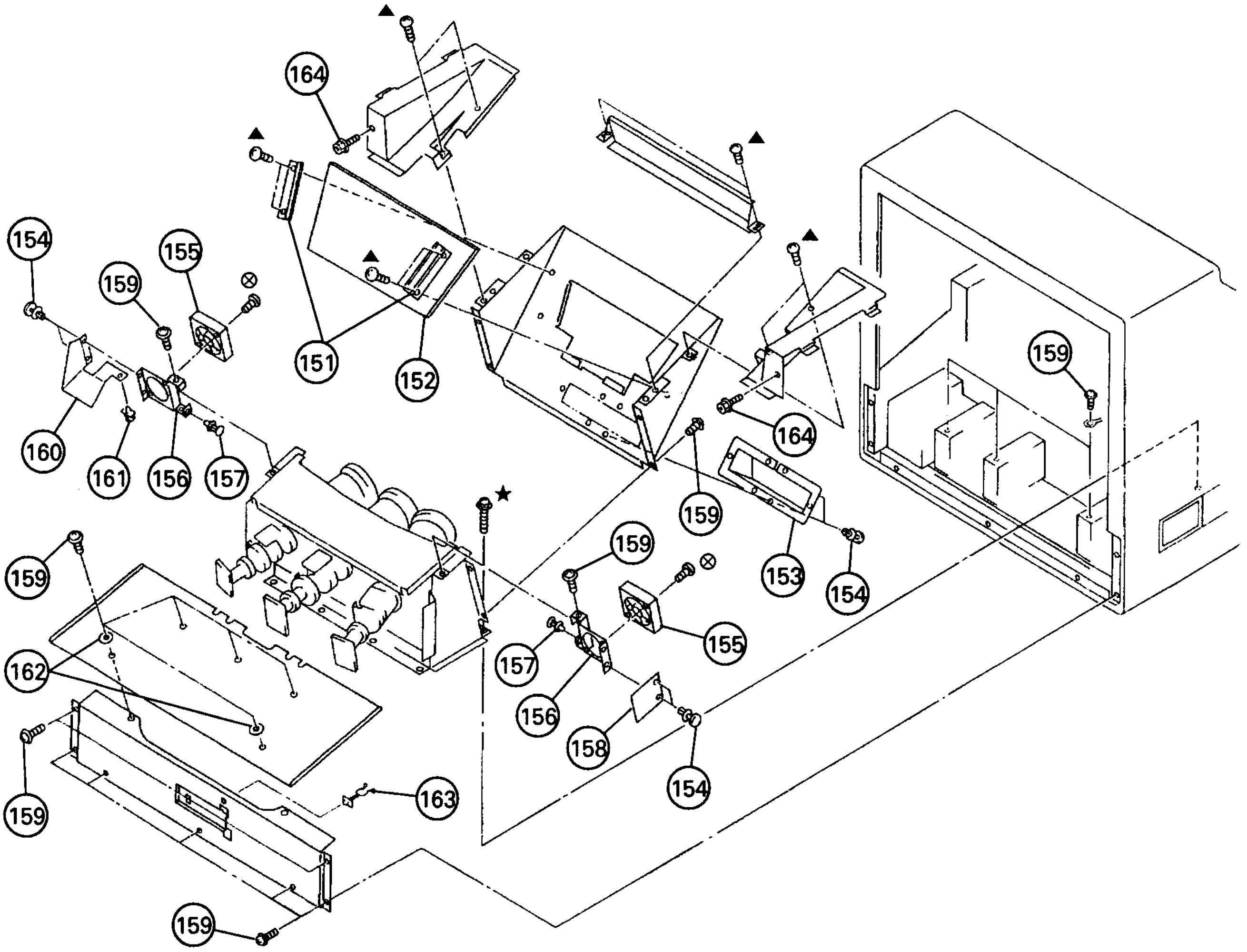
REF. NO.	PART NO.	DESCRIPTION	REMARK
101	* A-1346-181-A	DC BOARD, COMPLETE	
102	* 3-670-570-11	SPACER, SUPPORT	
103	* 4-044-539-01	BRACKET (R), DC FAN	
104	* 4-044-540-01	BRACKET (L), DC FAN	
105	1-698-059-11	FAN, DC	
106	* 4-395-528-01	HOLDER (C), TR	
107	* 4-395-553-01	HOLDER (A), TR	
108	4-393-406-01	SHEET (R), RADIATION	
109	* A-1346-190-A	E BOARD, COMPLETE	
110	* A-1195-081-A	PA BOARD, COMPLETE	
111	* 3-703-141-00	HOLDER, PCB	
112	* 3-659-682-00	HOLDER, PC BOARD	
113	* 3-701-903-11	HOLDER, PC BOARD	
114	* 4-044-541-02	HOLDER, PC	
115	* A-1190-196-A	PC BOARD, COMPLETE	
116	* 4-044-568-02	HOLDER, PA	
117	3-701-810-81	SCREW, TERMINAL	
118	9-910-999-33	PURSE LOCK (DIA.15)	

8-4. SHIELD AND MIRROR HOLDER BLOCK

▲ 7-685-659-79 +BVTP 4X8
★ 7-682-667-09 +PSW 4X25
⊗ 7-685-666-79 +BVTP 4X30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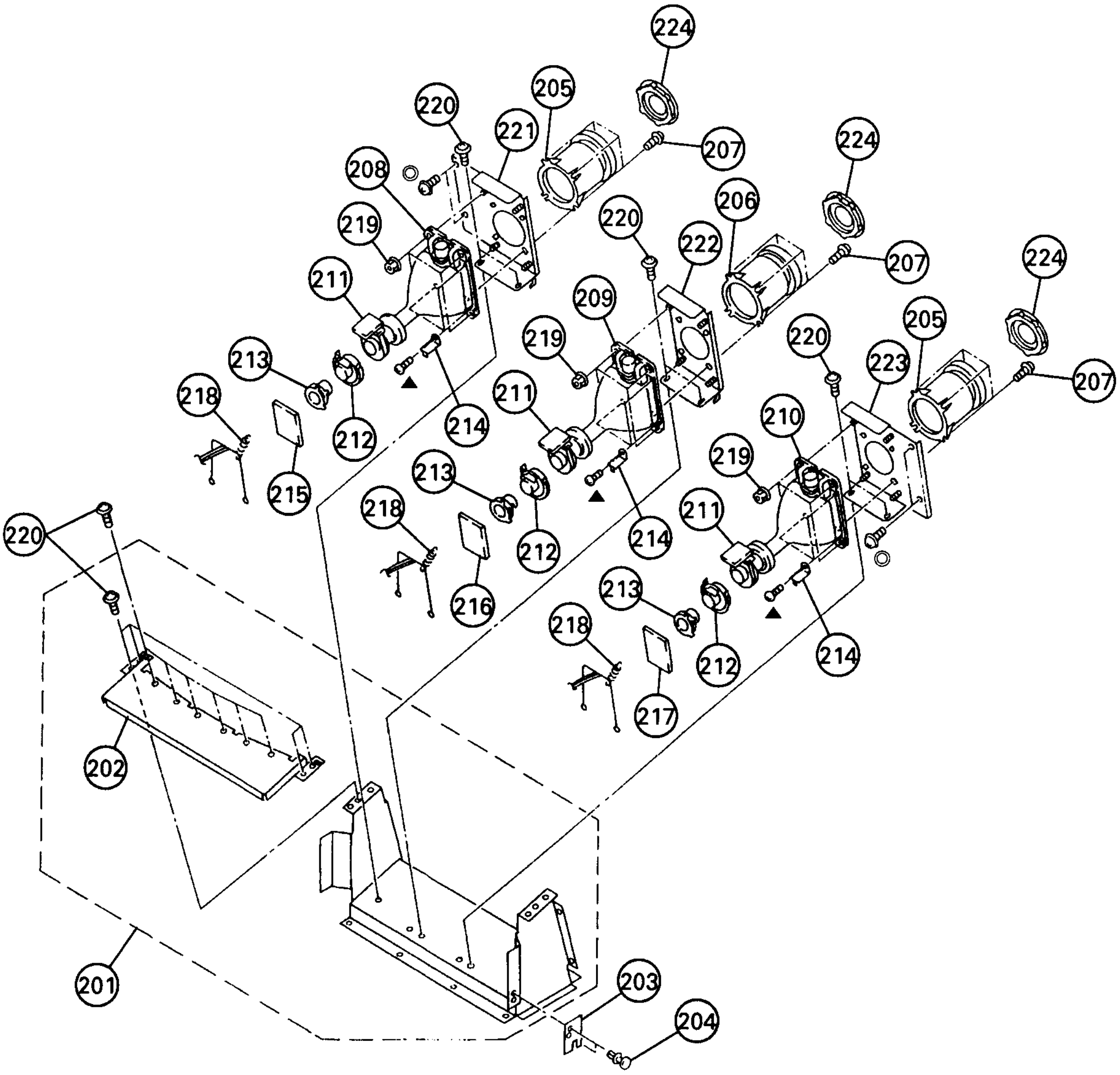
REF. NO.	PART NO.	DESCRIPTION	REMARK
151	* 4-044-517-01	BRACKET (S)	
152	4-044-520-01	MIRROR (L)	
153	* 4-044-518-01	DUCT (M)	
154	4-374-303-01	RIVET, NYLON	
155	1-698-369-11	FAN, DC	
156	* 4-044-510-01	BRACKET, FAN	
157	* 3-687-542-41	SPACER, PC BOARD SPACE	
158	* 4-044-542-01	PLATE, DUCT	
159	3-701-810-81	SCREW, TERMINAL	
160	* 4-045-723-01	DUCT (D)	
161	* 3-670-570-11	SPACER, SUPPORT	
162	3-610-931-31	SPACER, SHAFT, DRUM, HEAD	
163	9-910-999-33	PURSE LOCK (DIA.15)	
164	4-378-522-51	SCREW, TAPPING, HEXAGON HEAD	

The componants identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie.

8-5. PICTURE TUBE

▲ 7-685-659-79 +BVTP 4X8
◎ 7-682-549-04 SCREW, TERMINAL M3X10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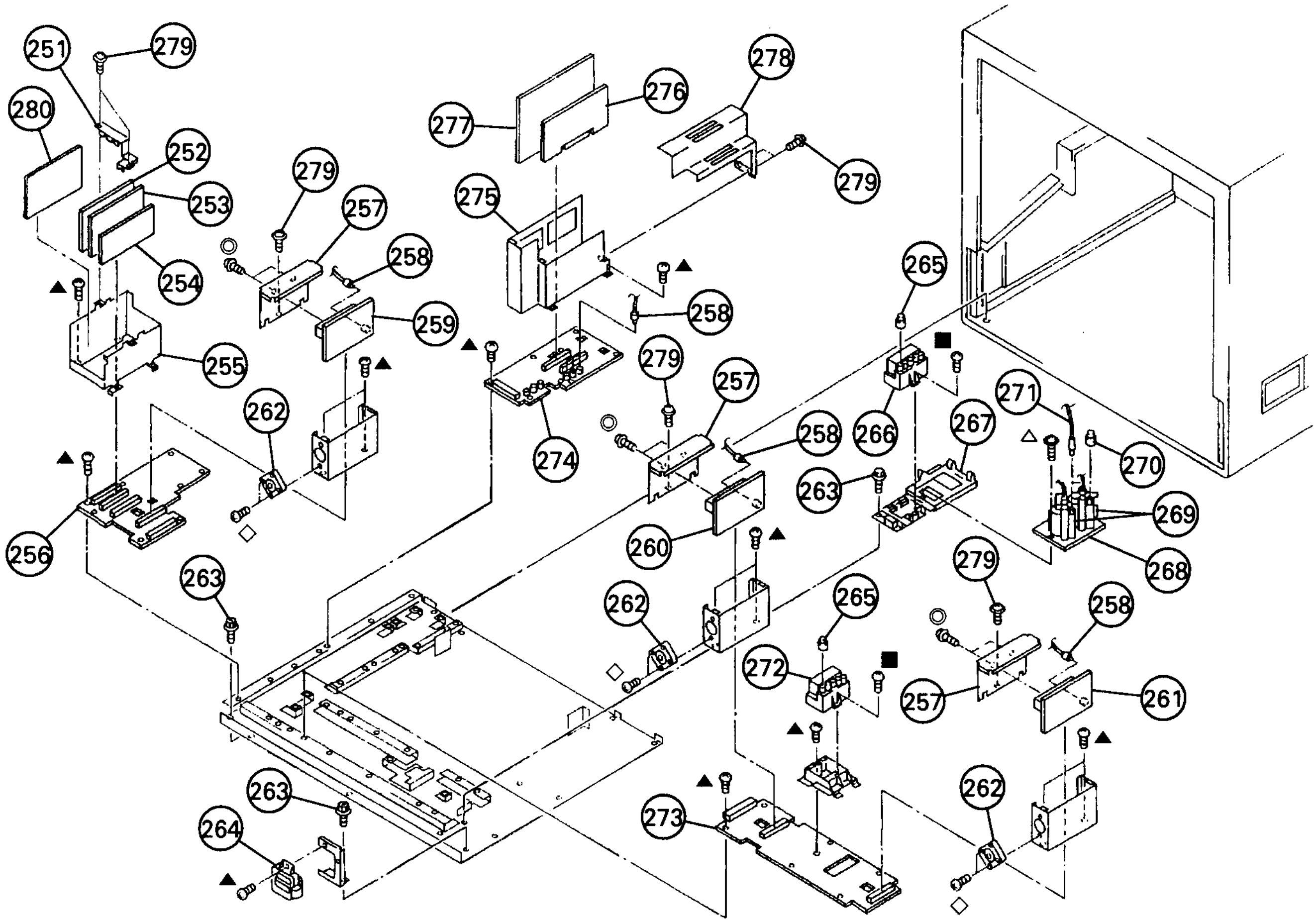
REF. NO.	PART NO.	DESCRIPTION	REMARK
201	* X-4031-844-1	BRACKET ASSY, PICTURE TUBE	202
202	* 4-044-588-01	BRACKET (TP), PICTURE TUBE	
203	* 4-034-125-01	STOPPER (B), PLATE	
204	4-374-303-01	RIVET, NYLON	
205	4-044-529-01	LENS (DELTA 88T)	
206	4-044-529-11	LENS (DELTA 88T)	
207	3-701-810-91	SCREW, TERMINAL	
208	⚠ 8-736-065-05	PICTURE TUBE 07MSU (SD-208) (R)	
209	⚠ 8-736-063-05	PICTURE TUBE 07MSU (SD-208) (G)	
210	⚠ 8-736-064-05	PICTURE TUBE 07MSU (SD-208) (B)	
211	⚠ 1-451-355-12	DEFLECTION YOKE (Y636PJ)	
212	⚠ 1-452-730-12	NECK ASSEMBLY (NA-3613)	
213	⚠ 1-452-443-13	NECK ASSY, PICTURE TUBE (NA367)	
214	4-032-428-01	HOOK, GROUND	
215	* A-1390-423-A	CBR BOARD, COMPLETE	
216	* A-1390-424-A	CBG BOARD, COMPLETE	
217	* A-1390-425-A	CBB BOARD, COMPLETE	
218	4-303-774-99	SPRING	
219	4-304-749-00	NUT (M4), FLANGE	
220	3-701-810-81	SCREW, TERMINAL	
221	* 4-044-582-01	PLATE (R), PICTURE TUBE	
222	* 4-044-581-01	PLATE, PICTURE TUBE	
223	* 4-044-583-01	PLATE (L), PICTURE TUBE	
224	4-052-301-01	CAP, FLARE STOP	

The componants identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie.

8-6. CHASSIS BLOCK

▲	7-685-659-79	+BVTP 4X8
■	7-685-661-79	+BVTP 4X12
◇	7-685-651-79	+BVTP 3X20
△	7-682-950-01	+PSW 3X12
◎	7-682-549-04	SCREW, TERMINAL M3X10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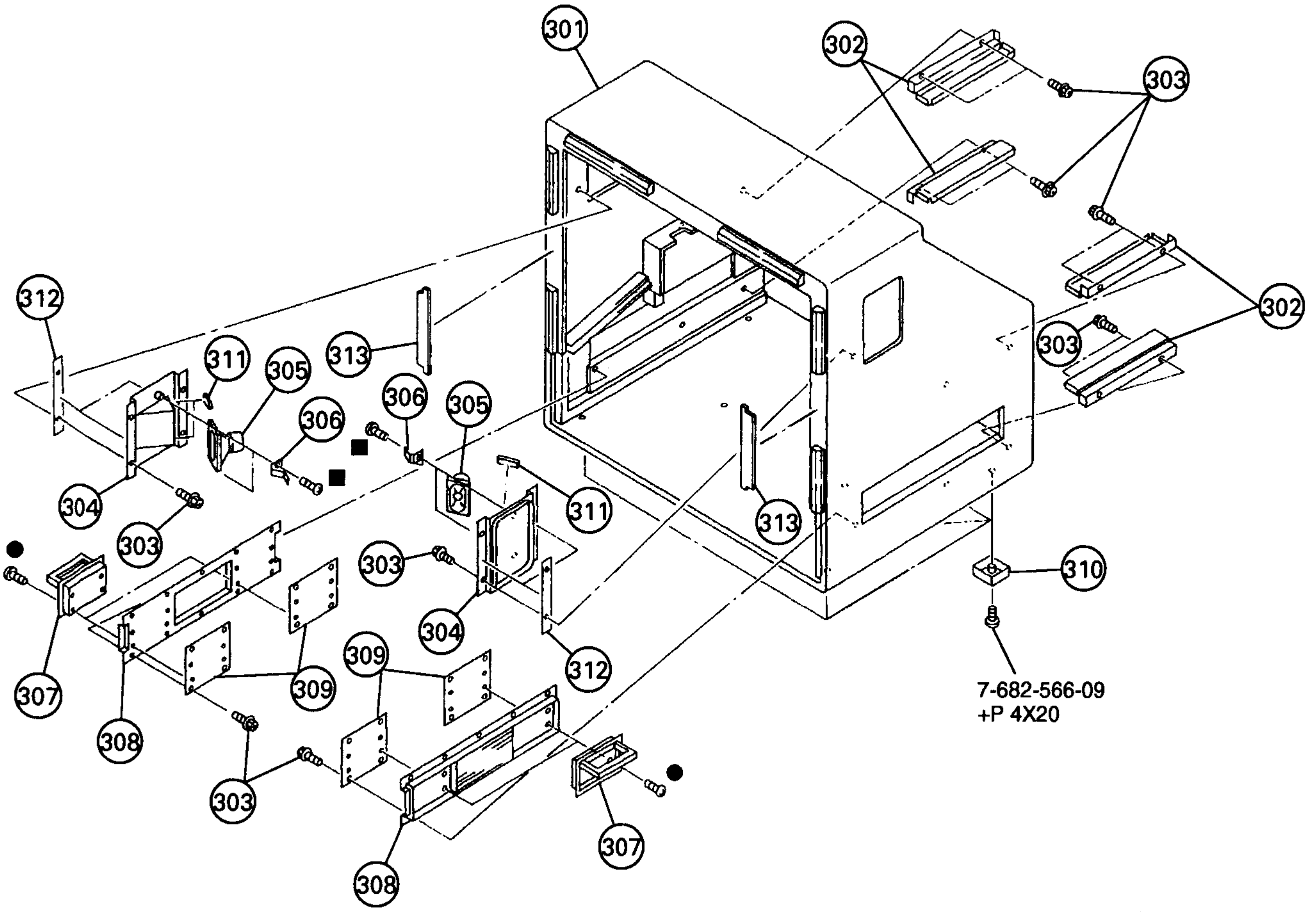
REF. NO.	PART NO.	DESCRIPTION	REMARK
251	* 4-044-521-02	COVER, D BRACKET	
252	* A-1346-230-A	DB BOARD, COMPLETE	
253	* A-1346-229-A	DA BOARD, COMPLETE	
254	* A-1335-052-A	CAC BOARD, COMPLETE	
255	* 4-044-569-02	BRACKET, D	
256	* A-1343-108-A	DM BOARD, COMPLETE	
257	* 4-044-567-01	COVER, CA SHIELD	
258	* 1-556-945-21	CABLE, P-P	
259	* A-1335-053-A	CAR BOARD, COMPLETE	
260	* A-1335-054-A	CAG BOARD, COMPLETE	
261	* A-1335-055-A	CAB BOARD, COMPLETE	
262	1-698-059-11	FAN, DC	
263	4-378-522-51	SCREW, TAPPING, HEXAGON HEAD	
264	1-241-744-21	RESISTOR ASSY (HIGH-VOLTAGE)	
265	4-373-137-01	CAP (Z), RUBBER	
266	⚠ 1-453-108-31	DC BLOCK, HIGH-VOLTAGE	
267	* 4-043-149-01	BRACKET, HV	
268	* A-1190-195-B	PB BOARD, COMPLETE	
269	⚠ 1-453-160-12	TRANSFORMER ASSY, FLYBACK	
270	4-042-892-01	CAP, MV	
271	⚠ 1-559-865-31	LEAD ASSY, HIGH-VOLTAGE	
272	⚠ 1-453-108-11	DC BLOCK, HIGH-VOLTAGE	
273	* A-1331-307-A	CM BOARD, COMPLETE	
274	* A-1131-096-A	BM BOARD, COMPLETE	
275	* 4-044-556-01	BRACKET, BY	
276	* A-1394-770-A	Y BOARD, COMPLETE	
277	* A-1135-780-A	B BOARD, COMPLETE	
278	* 4-044-579-01	COVER, BY	
279	3-701-810-81	SCREW, TERMINAL	
280	* A-1343-131-A	DE BOARD, COMPLETE	

8-7. CABINET BLOCK

● 7-685-648-79 +BVTP 3X12
■ 7-685-661-79 +BVTP 4X12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REF. NO.	PART NO.	DESCRIPTION	REMARK
301	*4-044-561-01	CABINET	
302	*4-044-565-01	BRACKET, SIDE	
303	4-378-522-51	SCREW, TAPPING, HEXAGON HEAD	
304	X-4031-850-1	HOLDER ASSY, SPEAKER	
305	1-544-353-11	SPEAKER	
306	*4-044-537-01	BRACKET, SPEAKER	
307	X-3642-018-3	HANDLE ASSY	
308	*4-044-573-01	BRACKET, HANDLE	
309	*4-044-538-01	HOLDER, HANDLE	
310	4-043-335-12	FOOT (RE)	
311	4-045-462-01	SPACER (A), SPEAKER	
312	4-045-463-01	SPACER (B), SPEAKER	
313	*4-045-398-01	CUSHION, CABINET	

SECTION 9
ELECTRICAL PARTS LIST

BM **B**

NOTE:

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

The componants identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

- The components identified by ⧓ in this manual have been carefully factory- selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

RESISTORS
- All resistors are in ohms
- F : nonflammable

When indicating parts by reference number, please include the board name.

- CAPACITORS
  PF : μμ F
- There are some cases the reference number on one board overlaps on the other board. Therefore, when ordering parts by the reference number, please include the board name.

REF. NO.	PART NO.	DESCRIPTION			REMARK
	*A-1131-096-A	BM BOARD, COMPLETE **********************			
		<CONNECTOR>			
CN31	*1-766-305-11	PIN, PC CONNECTOR 96P			
CN32	*1-766-307-11	SOCKET, PC CONNECTOR 96P			
CN33	*1-766-307-11	SOCKET, PC CONNECTOR 96P			
CN34	*1-564-515-11	PLUG, CONNECTOR 12P			
CN35	*1-564-513-11	PLUG, CONNECTOR 10P			
CN38	*1-564-509-11	PLUG, CONNECTOR 6P			
CN40	*1-564-513-11	PLUG, CONNECTOR 10P			
CN41	*1-564-516-11	PLUG, CONNECTOR 13P			
CN42	*1-564-516-11	PLUG, CONNECTOR 13P			
		<JACK>			
J31	*1-526-575-00	SOCKET, PLUG 1P			
J32	*1-526-575-00	SOCKET, PLUG 1P			
J33	*1-526-575-00	SOCKET, PLUG 1P			
J34	*1-526-575-00	SOCKET, PLUG 1P			
J35	*1-526-575-00	SOCKET, PLUG 1P			
J36	*1-526-575-00	SOCKET, PLUG 1P			

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REF. NO.	PART NO.	DESCRIPTION			REMARK
	*A-1135-780-A	B BOARD, COMPLETE *********************			
	4-382-854-11	SCREW (M3X10), P, SW (+)			
		<BAND PASS FILTER>			
BPF1	1-236-366-11	MODULE, TRAP			
BPF2	1-236-365-11	MODULE, TRAP			
		<CAPACITOR>			
C1	1-124-910-11	ELECT	47μF	20%	50V
C2	1-124-910-11	ELECT	47μF	20%	50V
C3	1-124-910-11	ELECT	47μF	20%	50V
C8	1-124-122-11	ELECT	100μF	20%	50V
C9	1-124-122-11	ELECT	100μF	20%	50V
C10	1-164-232-11	CERAMIC CHIP	0.01μF	10%	50V
C11	1-124-907-11	ELECT	10μF	20%	50V
C12	1-124-910-11	ELECT	47μF	20%	50V
C13	1-124-910-11	ELECT	47μF	20%	50V
C14	1-124-910-11	ELECT	47μF	20%	50V
C15	1-124-910-11	ELECT	47μF	20%	50V
C16	1-164-232-11	CERAMIC CHIP	0.01μF	10%	50V
C17	1-124-910-11	ELECT	47μF	20%	50V
C18	1-124-910-11	ELECT	47μF	20%	50V
C23	1-164-232-11	CERAMIC CHIP	0.01μF	10%	50V
C24	1-124-910-11	ELECT	47μF	20%	50V
C25	1-124-910-11	ELECT	47μF	20%	50V
C26	1-124-910-11	ELECT	47μF	20%	50V
C27	1-124-910-11	ELECT	47μF	20%	50V
C28	1-163-009-11	CERAMIC CHIP	0.001μF	10%	50V
C29	1-164-232-11	CERAMIC CHIP	0.01μF	10%	50V
C30	1-163-009-11	CERAMIC CHIP	0.001μF	10%	50V
C31	1-164-232-11	CERAMIC CHIP	0.01μF	10%	50V
C32	1-163-009-11	CERAMIC CHIP	0.001μF	10%	50V
C33	1-124-907-11	ELECT	10μF	20%	50V
C34	1-163-109-00	CERAMIC CHIP	47pF	5%	50V
C35	1-163-093-00	CERAMIC CHIP	10pF	5%	50V
C36	1-163-117-00	CERAMIC CHIP	100pF	5%	50V
C37	1-124-903-11	ELECT	1μF	20%	50V
C39	1-163-119-00	CERAMIC CHIP	120pF	5%	50V
C40	1-163-009-11	CERAMIC CHIP	0.001μF	10%	50V
C41	1-163-031-11	CERAMIC CHIP	0.01μF	50V	
C42	1-163-099-00	CERAMIC CHIP	18pF	5%	50V
C43	1-124-907-11	ELECT	10μF	20%	50V
C44	1-164-232-11	CERAMIC CHIP	0.01μF	10%	50V
C45	1-163-245-11	CERAMIC CHIP	56pF	5%	50V
C46	1-124-119-00	ELECT	330μF	20%	16V
C47	1-124-119-00	ELECT	330μF	20%	16V
C48	1-163-035-00	CERAMIC CHIP	0.047μF	50V	
C49	1-136-153-00	FILM	0.01μF	5%	50V
C50	1-163-033-91	CERAMIC CHIP	0.022μF	50V	
C51	1-163-031-11	CERAMIC CHIP	0.01μF	50V	
C52	1-163-119-00	CERAMIC CHIP	120pF	5%	50V
C53	1-163-241-11	CERAMIC CHIP	39pF	5%	50V
C54	1-163-099-00	CERAMIC CHIP	18pF	5%	50V
C55	1-163-125-00	CERAMIC CHIP	220pF	5%	50V
C56	1-163-099-00	CERAMIC CHIP	18pF	5%	50V
C57	1-163-119-00	CERAMIC CHIP	120pF	5%	50V
C58	1-163-113-00	CERAMIC CHIP	68pF	5%	50V
C59	1-163-125-00	CERAMIC CHIP	220pF	5%	50V
C60	1-163-009-11	CERAMIC CHIP	0.001μF	10%	50V
C61	1-136-177-00	FILM	1μF	5%	50V
C62	1-136-177-00	FILM	1μF	5%	50V
C63	1-124-122-11	ELECT	100μF	20%	50V
C67	1-163-109-00	CERAMIC CHIP	47pF	5%	50V
C68	1-163-109-00	CERAMIC CHIP	47pF	5%	50V
C69	1-163-119-00	CERAMIC CHIP	120pF	5%	50V
C70	1-163-133-00	CERAMIC CHIP	470pF	5%	50V
C71	1-163-133-00	CERAMIC CHIP	470pF	5%	50V
C72	1-126-963-11	ELECT	4.7μF	20%	50V
C73	1-124-903-11	ELECT	1μF	20%	50V
C74	1-136-171-00	FILM	0.33μF	5%	50V
C75	1-137-368-11	FILM	0.0047μF	5%	50V
C76	1-136-157-00	FILM	0.022μF	5%	50V
C77	1-136-157-00	FILM	0.022μF	5%	50V
C78	1-163-119-00	CERAMIC CHIP	120pF	5%	50V
C79	1-163-009-11	CERAMIC CHIP	0.001μF	10%	50V
C82	1-124-657-00	ELECT	10μF	20%	50V
C83	1-124-907-11	ELECT	10μF	20%	50V

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REF. NO.	PART NO.	DESCRIPTION			REMARK
C84	1-124-910-11	ELECT	47µF	20%	50V
C85	1-124-907-11	ELECT	10µF	20%	50V
C86	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C87	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C88	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C89	1-164-161-11	CERAMIC CHIP	0.0022µF	50V	
C90	1-124-122-11	ELECT	100µF	20%	50V
C91	1-163-103-00	CERAMIC CHIP	27pF	5%	50V
C104	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C106	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C201	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C202	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C203	1-136-157-00	FILM	0.022µF	5%	50V
C204	1-126-963-11	ELECT	4.7µF	20%	50V
C205	1-163-109-00	CERAMIC CHIP	47pF	5%	50V
C207	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C208	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C211	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C212	1-163-224-11	CERAMIC CHIP	7pF	0.25pF	50V
C213	1-124-122-11	ELECT	100µF	20%	50V
C214	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C215	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C216	1-124-122-11	ELECT	100µF	20%	50V
C217	1-124-122-11	ELECT	100µF	20%	50V
C218	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C219	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C220	1-124-122-11	ELECT	100µF	20%	50V
C221	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C222	1-124-122-11	ELECT	100µF	20%	50V
C223	1-124-122-11	ELECT	100µF	20%	50V
C224	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C229	1-124-907-11	ELECT	10µF	20%	50V
C230	1-124-122-11	ELECT	100µF	20%	50V
C231	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C234	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C235	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C236	1-124-907-11	ELECT	10µF	20%	50V
C237	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C238	1-124-907-11	ELECT	10µF	20%	50V
C239	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C240	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C241	1-126-963-11	ELECT	4.7µF	20%	50V
C242	1-124-907-11	ELECT	10µF	20%	50V
C243	1-124-907-11	ELECT	10µF	20%	50V
C244	1-124-907-11	ELECT	10µF	20%	50V
C301	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C302	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C304	1-163-227-11	CERAMIC CHIP	10pF	0.5pF	50V
C305	1-126-965-11	ELECT	22µF	20%	50V
C306	1-124-910-11	ELECT	47µF	20%	50V
C307	1-136-169-00	FILM	0.22µF	5%	50V
C308	1-124-902-00	ELECT	0.47µF	20%	50V
C309	1-124-902-00	ELECT	0.47µF	20%	50V
C310	1-124-902-00	ELECT	0.47µF	20%	50V
C311	1-126-965-11	ELECT	22µF	20%	50V
C312	1-124-910-11	ELECT	47µF	20%	50V
C313	1-124-910-11	ELECT	47µF	20%	50V
C314	1-124-910-11	ELECT	47µF	20%	50V
C315	1-124-910-11	ELECT	47µF	20%	50V
C316	1-124-902-00	ELECT	0.47µF	20%	50V
C317	1-104-665-11	ELECT	100µF	20%	16V
C318	1-124-910-11	ELECT	47µF	20%	50V
C319	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C320	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C321	1-124-907-11	ELECT	10µF	20%	50V
C322	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C323	1-124-907-11	ELECT	10µF	20%	50V
C324	1-104-665-11	ELECT	100µF	20%	16V

REF. NO.	PART NO.	DESCRIPTION			REMARK
C325	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C326	1-163-033-91	CERAMIC CHIP	0.022µF	50V	
C327	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C328	1-163-033-91	CERAMIC CHIP	0.022µF	50V	
C329	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C330	1-163-105-00	CERAMIC CHIP	33pF	5%	50V
C331	1-136-177-00	FILM	1µF	5%	50V
C332	1-136-169-00	FILM	0.22µF	5%	50V
C333	1-124-907-11	ELECT	10µF	20%	50V
C334	1-124-910-11	ELECT	47µF	20%	50V
C335	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C336	1-163-117-00	CERAMIC CHIP	100pF	5%	50V
C337	1-163-089-00	CERAMIC CHIP	6pF	0.25pF	50V
C338	1-124-907-11	ELECT	10µF	20%	50V
C339	1-124-903-11	ELECT	1µF	20%	50V
C340	1-124-903-11	ELECT	1µF	20%	50V
C341	1-124-907-11	ELECT	10µF	20%	50V
C342	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C343	1-124-910-11	ELECT	47µF	20%	50V
C344	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C346	1-124-907-11	ELECT	10µF	20%	50V
C347	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C351	1-124-903-11	ELECT	1µF	20%	50V
C352	1-124-907-11	ELECT	10µF	20%	50V
C404	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C407	1-104-665-11	ELECT	100µF	20%	16V
C408	1-124-907-11	ELECT	10µF	20%	50V
C409	1-104-665-11	ELECT	100µF	20%	16V
C412	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C413	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C414	1-124-907-11	ELECT	10µF	20%	50V
C415	1-104-665-11	ELECT	100µF	20%	16V
C416	1-104-665-11	ELECT	100µF	20%	16V
C417	1-124-120-11	ELECT	220µF	20%	16V
C418	1-104-665-11	ELECT	100µF	20%	16V
C426	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C427	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C428	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C429	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C430	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C520	1-124-903-11	ELECT	1µF	20%	50V
C521	1-124-907-11	ELECT	10µF	20%	50V
C650	1-124-657-00	ELECT	10µF	20%	50V
C651	1-136-169-00	FILM	0.22µF	5%	50V
C652	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C653	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C654	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C655	1-124-910-11	ELECT	47µF	20%	50V
C657	1-126-941-11	ELECT	470µF	20%	16V
C658	1-124-122-11	ELECT	100µF	20%	50V
C660	1-124-907-11	ELECT	10µF	20%	50V
C692	1-124-122-11	ELECT	100µF	20%	50V
C693	1-124-122-11	ELECT	100µF	20%	50V
C694	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C695	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C696	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C697	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C700	1-124-657-00	ELECT	10µF	20%	50V
C701	1-136-169-00	FILM	0.22µF	5%	50V
C702	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C703	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C708	1-124-910-11	ELECT	47µF	20%	50V
C710	1-124-122-11	ELECT	100µF	20%	50V
C711	1-126-941-11	ELECT	470µF	20%	16V
C713	1-124-907-11	ELECT	10µF	20%	50V
C750	1-124-657-00	ELECT	10µF	20%	50V
C751	1-136-169-00	FILM	0.22µF	5%	50V
C752	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V

REF. NO.	PART NO.	DESCRIPTION			REMARK
C753	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C754	1-104-665-11	ELECT	100µF	20%	16V
C755	1-104-665-11	ELECT	100µF	20%	16V
C756	1-104-665-11	ELECT	100µF	20%	16V
C757	1-124-910-11	ELECT	47µF	20%	50V
C759	1-124-122-11	ELECT	100µF	20%	50V
C760	1-126-941-11	ELECT	470µF	20%	16V
C762	1-126-965-11	ELECT	22µF	20%	50V
C763	1-124-907-11	ELECT	10µF	20%	50V
C914	1-104-665-11	ELECT	100µF	20%	16V
		<CONNECTOR>			
CN121	*1-766-305-11	PIN, PC CONNECTOR 96P			
		<TRIMMER>			
CT101	1-141-181-11	CAP,TRIMMER			
CT102	1-141-181-11	CAP,TRIMMER			
		<DIODE>			
D1	8-719-801-78	DIODE 1SS184			
D2	8-719-801-78	DIODE 1SS184			
D3	8-719-801-78	DIODE 1SS184			
D4	8-719-801-78	DIODE 1SS184			
D5	8-719-801-78	DIODE 1SS184			
D6	8-719-104-34	DIODE 1S2836			
D7	8-719-801-78	DIODE 1SS184			
D8	8-719-801-78	DIODE 1SS184			
D9	8-719-801-78	DIODE 1SS184			
D10	8-719-801-78	DIODE 1SS184			
D11	8-719-800-76	DIODE 1SS226			
D12	8-719-801-78	DIODE 1SS184			
D13	8-719-801-78	DIODE 1SS184			
D14	8-719-801-78	DIODE 1SS184			
D101	8-719-105-46	DIODE RD3.3M-B2			
D102	8-719-105-82	DIODE RD5.1M-B2			
D103	8-719-801-78	DIODE 1SS184			
D107	8-719-801-78	DIODE 1SS184			
D108	8-719-900-95	DIODE V09G			
D109	8-719-900-95	DIODE V09G			
D110	8-719-105-99	DIODE RD6.2M-T1B1			
D112	8-719-801-78	DIODE 1SS184			
D113	8-719-801-78	DIODE 1SS184			
D118	8-719-104-34	DIODE 1S2836			
D130	8-719-801-78	DIODE 1SS184			
D132	8-719-104-34	DIODE 1S2836			
D201	8-719-801-78	DIODE 1SS184			
D301	8-719-801-78	DIODE 1SS184			
D302	8-719-104-34	DIODE 1S2836			
D303	8-719-801-78	DIODE 1SS184			
D304	8-719-105-63	DIODE RD4.3M-B1			
D305	8-719-105-46	DIODE RD3.3M-B2			
D306	8-719-801-78	DIODE 1SS184			
D307	8-719-801-78	DIODE 1SS184			
D350	8-719-801-78	DIODE 1SS184			
D351	8-719-801-78	DIODE 1SS184			
D352	8-719-801-78	DIODE 1SS184			
D401	8-719-900-95	DIODE V09G			
D402	8-719-900-95	DIODE V09G			
D506	8-719-105-82	DIODE RD5.1M-B2			
D529	8-719-105-46	DIODE RD3.3M-B2			
D530	8-719-801-78	DIODE 1SS184			
D531	8-719-105-82	DIODE RD5.1M-B2			
D634	8-719-801-78	DIODE 1SS184			
D652	8-719-801-78	DIODE 1SS184			
D653	8-719-801-78	DIODE 1SS184			

REF. NO.	PART NO.	DESCRIPTION	REMARK
		<DELAY LINE>	
DL101	1-415-122-31	DELAY LINE, 1H (PAL)	
DL102	1-402-679-11	DELAY LINE	
DL103	1-403-576-11	DELAY LINE	
DL104	1-403-576-11	DELAY LINE	
		<FILTER>	
FL1	1-236-164-11	ENCAPSULATED COMPONENT	
FL2	1-239-397-11	FILTER, LOW PASS	
FL3	1-239-397-11	FILTER, LOW PASS	
FL4	1-239-397-11	FILTER, LOW PASS	
		<IC>	
IC1	8-759-300-71	IC HD14053BFP	
IC2	8-759-513-47	IC TDA4555/V1	
IC3	8-759-932-16	IC TDA4565	
IC5	8-759-710-42	IC NJM2228M	
IC6	8-759-208-94	IC CX-894	
IC7	8-759-300-71	IC HD14053BFP	
IC8	8-752-034-85	IC CXA1216P	
IC9	8-759-100-96	IC µPC4558G2	
IC10	8-741-765-01	IC SBX1765-01	
IC11	8-759-979-16	IC CX-7916	
IC12	8-749-011-71	IC H8D7276	
IC13	8-759-100-96	IC µPC4558G2	
IC14	8-759-925-78	IC SN74HC10ANS	
IC15	1-809-576-11	MODULE, H8B7178B	
IC16	8-759-231-58	IC TA7812S	
IC17	8-759-504-46	IC PQ05RF1	
IC19	8-759-926-06	IC SN74HC126ANS	
IC402	8-759-231-58	IC TA7812S	
IC403	8-759-701-88	IC NJM7912FA	
IC405	8-759-926-18	IC SN74HC157ANS	
IC407	8-759-926-18	IC SN74HC157ANS	
IC410	8-759-100-96	IC µPC4558G2	
IC411	8-759-100-96	IC µPC4558G2	
IC413	8-749-922-84	IC BX-6474	
IC414	8-749-922-83	IC BX-6473	
IC415	8-749-922-83	IC BX-6473	
IC416	8-749-922-83	IC BX-6473	
IC417	8-749-010-54	IC BX7913A	
IC418	8-749-010-58	IC BX6589	
IC419	8-749-010-58	IC BX6589	
IC420	8-749-010-58	IC BX6589	
IC422	8-759-100-93	IC µPC393G2	
IC423	8-759-925-85	IC SN74HC32ANS	
IC424	8-759-100-93	IC µPC393G2	
		<COIL>	
L101	1-410-470-11	INDUCTOR 10µH	
L102	1-410-209-51	INDUCTOR CHIP 27µH	
L103	1-410-466-41	INDUCTOR 4.7µH	
L104	1-408-406-00	INDUCTOR 5.6µH	
L105	1-404-539-11	COIL	
L106	1-404-554-11	COIL	
L107	1-404-554-11	COIL	
L108	1-404-554-11	COIL	
L109	1-408-397-00	INDUCTOR 1µH	
L110	1-410-466-41	INDUCTOR 4.7µH	
L111	1-410-466-41	INDUCTOR 4.7µH	
L112	1-410-466-41	INDUCTOR 4.7µH	
L114	1-459-155-00	COIL (WITH CORE) 45µH	
L115	1-459-155-00	COIL (WITH CORE) 45µH	
L116	1-410-466-41	INDUCTOR 4.7µH	
L120	1-404-584-11	COIL	

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REF. NO.	PART NO.	DESCRIPTION	REMARK
L402	1-459-155-00	COIL (WITH CORE) 45μH	
L403	1-459-155-00	COIL (WITH CORE) 45μH	
L404	1-459-155-00	COIL (WITH CORE) 45μH	
L605	1-410-482-31	INDUCTOR 100μH	
L651	1-410-482-31	INDUCTOR 100μH	
		<TRANSISTOR>	
Q2	8-729-901-01	TRANSISTOR DTC144EK	
Q3	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q7	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q8	8-729-901-01	TRANSISTOR DTC144EK	
Q9	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q10	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q11	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q12	8-729-216-22	TRANSISTOR 2SA1162-G	
Q13	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q14	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q15	8-729-901-01	TRANSISTOR DTC144EK	
Q16	8-729-901-01	TRANSISTOR DTC144EK	
Q17	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q18	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q19	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q20	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q21	8-729-901-01	TRANSISTOR DTC144EK	
Q22	8-729-901-01	TRANSISTOR DTC144EK	
Q23	8-729-901-01	TRANSISTOR DTC144EK	
Q24	8-729-901-01	TRANSISTOR DTC144EK	
Q25	8-729-901-01	TRANSISTOR DTC144EK	
Q26	8-729-901-01	TRANSISTOR DTC144EK	
Q27	8-729-901-01	TRANSISTOR DTC144EK	
Q28	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q29	8-729-216-22	TRANSISTOR 2SA1162-G	
Q30	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q31	8-729-216-22	TRANSISTOR 2SA1162-G	
Q32	8-729-216-22	TRANSISTOR 2SA1162-G	
Q33	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q34	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q35	8-729-901-01	TRANSISTOR DTC144EK	
Q36	8-729-216-22	TRANSISTOR 2SA1162-G	
Q37	8-729-901-01	TRANSISTOR DTC144EK	
Q38	8-729-901-01	TRANSISTOR DTC144EK	
Q39	8-729-116-06	TRANSISTOR 2SK160-K6	
Q40	8-729-116-06	TRANSISTOR 2SK160-K6	
Q41	8-729-901-01	TRANSISTOR DTC144EK	
Q42	8-729-901-01	TRANSISTOR DTC144EK	
Q43	8-729-901-01	TRANSISTOR DTC144EK	
Q45	8-729-901-01	TRANSISTOR DTC144EK	
Q48	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q49	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q50	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q51	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q52	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q118	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q119	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q120	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q152	8-729-901-01	TRANSISTOR DTC144EK	
Q201	8-729-901-01	TRANSISTOR DTC144EK	
Q202	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q203	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q204	8-729-901-01	TRANSISTOR DTC144EK	
Q205	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q206	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q207	8-729-120-28	TRANSISTOR 2SC1623-L5L6	
Q208	8-729-901-01	TRANSISTOR DTC144EK	
Q209	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q210	8-729-216-22	TRANSISTOR 2SA1162-G	
Q211	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q212	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q213	8-729-216-22	TRANSISTOR 2SA1162-G	
Q301	8-729-140-96	TRANSISTOR 2SD774-34	
Q302	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q303	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q304	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q305	8-729-901-01	TRANSISTOR DTC144EK	
Q306	8-729-901-01	TRANSISTOR DTC144EK	
Q307	8-729-901-01	TRANSISTOR DTC144EK	
Q308	8-729-901-01	TRANSISTOR DTC144EK	
Q309	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q310	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q311	8-729-901-01	TRANSISTOR DTC144EK	
Q312	8-729-901-01	TRANSISTOR DTC144EK	
Q313	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q314	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q315	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q316	8-729-901-01	TRANSISTOR DTC144EK	
Q317	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q318	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q319	8-729-901-01	TRANSISTOR DTC144EK	
Q320	8-729-901-01	TRANSISTOR DTC144EK	
Q321	8-729-901-01	TRANSISTOR DTC144EK	
Q323	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q324	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q325	8-729-901-01	TRANSISTOR DTC144EK	
Q326	8-729-901-01	TRANSISTOR DTC144EK	
Q327	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q329	8-729-116-06	TRANSISTOR 2SK160-K6	
Q330	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q336	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q337	8-729-216-22	TRANSISTOR 2SA1162-G	
Q338	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q340	8-729-901-01	TRANSISTOR DTC144EK	
Q350	8-729-901-01	TRANSISTOR DTC144EK	
Q351	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q352	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q360	8-729-901-01	TRANSISTOR DTC144EK	
Q361	8-729-901-01	TRANSISTOR DTC144EK	
Q362	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q402	8-729-140-97	TRANSISTOR 2SB734-34	
Q403	8-729-901-01	TRANSISTOR DTC144EK	
Q404	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q405	8-729-901-01	TRANSISTOR DTC144EK	
Q406	8-729-901-01	TRANSISTOR DTC144EK	
Q407	8-729-901-01	TRANSISTOR DTC144EK	
Q408	8-729-901-01	TRANSISTOR DTC144EK	
Q409	8-729-112-65	TRANSISTOR 2SA1462-T1Y33	
Q410	8-729-112-65	TRANSISTOR 2SA1462-T1Y33	
Q411	8-729-112-65	TRANSISTOR 2SA1462-T1Y33	
Q539	8-729-901-01	TRANSISTOR DTC144EK	
Q541	8-729-901-01	TRANSISTOR DTC144EK	
Q542	8-729-901-01	TRANSISTOR DTC144EK	
Q543	8-729-901-01	TRANSISTOR DTC144EK	
Q544	8-729-901-01	TRANSISTOR DTC144EK	
Q545	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q547	8-729-216-22	TRANSISTOR 2SA1162-G	
Q548	8-729-901-01	TRANSISTOR DTC144EK	
Q549	8-729-901-01	TRANSISTOR DTC144EK	
Q552	8-729-901-01	TRANSISTOR DTC144EK	
Q553	8-729-901-01	TRANSISTOR DTC144EK	
Q554	8-729-901-01	TRANSISTOR DTC144EK	
Q650	8-729-116-05	TRANSISTOR 2SK160-K5	
Q651	8-729-107-31	TRANSISTOR 2SC3545-T43	
Q653	8-729-107-31	TRANSISTOR 2SC3545-T43	
Q654	8-729-107-31	TRANSISTOR 2SC3545-T43	
Q656	8-729-901-01	TRANSISTOR DTC144EK	
Q700	8-729-116-05	TRANSISTOR 2SK160-K5	
Q701	8-729-107-31	TRANSISTOR 2SC3545-T43	

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REF. NO.	PART NO.	DESCRIPTION			REMARK
Q702	8-729-107-31	TRANSISTOR 2SC3545-T43			
Q710	8-729-107-30	TRANSISTOR 2SC3545-T42			
Q750	8-729-116-05	TRANSISTOR 2SK160-K5			
Q751	8-729-107-31	TRANSISTOR 2SC3545-T43			
Q752	8-729-112-65	TRANSISTOR 2SA1462-T1Y33			
Q753	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q754	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q755	8-729-107-31	TRANSISTOR 2SC3545-T43			
Q757	8-729-107-30	TRANSISTOR 2SC3545-T42			
		<RESISTOR>			
R1	1-216-001-00	METAL GLAZE	10	5%	1/10W
R2	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W
R3	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W
R4	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R6	1-216-001-00	METAL GLAZE	10	5%	1/10W
R7	1-208-814-11	METAL CHIP	22K	0.50%	1/10W
R8	1-216-001-00	METAL GLAZE	10	5%	1/10W
R11	1-208-774-11	METAL CHIP	470	0.50%	1/10W
R12	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R13	1-208-822-11	METAL CHIP	47K	0.50%	1/10W
R14	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W
R15	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R16	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R17	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R19	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R20	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R21	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W
R22	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W
R25	1-208-774-11	METAL CHIP	470	0.50%	1/10W
R26	1-216-017-91	METAL GLAZE	47	5%	1/10W
R27	1-216-037-00	METAL GLAZE	330	5%	1/10W
R29	1-208-822-11	METAL CHIP	47K	0.50%	1/10W
R30	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R31	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R32	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R33	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W
R34	1-216-047-91	METAL GLAZE	820	5%	1/10W
R35	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R38	1-216-047-91	METAL GLAZE	820	5%	1/10W
R39	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R40	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R41	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W
R42	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R43	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R44	1-216-047-91	METAL GLAZE	820	5%	1/10W
R45	1-216-641-11	METAL CHIP	390	0.50%	1/10W
R46	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R47	1-216-043-91	METAL GLAZE	560	5%	1/10W
R48	1-216-035-00	METAL GLAZE	270	5%	1/10W
R49	1-216-635-11	METAL CHIP	220	0.50%	1/10W
R50	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R51	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W
R52	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W
R53	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W
R54	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R55	1-216-627-11	METAL CHIP	100	0.50%	1/10W
R56	1-216-627-11	METAL CHIP	100	0.50%	1/10W
R57	1-216-627-11	METAL CHIP	100	0.50%	1/10W
R58	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W
R59	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W
R60	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R61	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R63	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W
R64	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R65	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W
R66	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W
R67	1-216-665-11	METAL CHIP	3.9K	0.50%	1/10W
R68	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R69	1-216-025-91	METAL GLAZE	100	5%	1/10W
R70	1-216-025-91	METAL GLAZE	100	5%	1/10W
R71	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W
R72	1-208-814-11	METAL CHIP	22K	0.50%	1/10W
R73	1-208-814-11	METAL CHIP	22K	0.50%	1/10W
R74	1-208-814-11	METAL CHIP	22K	0.50%	1/10W
R75	1-208-814-11	METAL CHIP	22K	0.50%	1/10W
R76	1-208-814-11	METAL CHIP	22K	0.50%	1/10W
R77	1-208-814-11	METAL CHIP	22K	0.50%	1/10W
R78	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W
R80	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W
R81	1-216-017-91	METAL GLAZE	47	5%	1/10W
R82	1-216-641-11	METAL CHIP	390	0.50%	1/10W
R83	1-216-031-00	METAL GLAZE	180	5%	1/10W
R84	1-216-045-00	METAL GLAZE	680	5%	1/10W
R85	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W
R86	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W
R87	1-216-071-00	METAL GLAZE	8.2K	5%	1/10W
R88	1-216-085-00	METAL GLAZE	33K	5%	1/10W
R89	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R90	1-216-043-91	METAL GLAZE	560	5%	1/10W
R91	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R92	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R93	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W
R94	1-208-774-11	METAL CHIP	470	0.50%	1/10W
R95	1-216-641-11	METAL CHIP	390	0.50%	1/10W
R101	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R102	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R103	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R104	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R105	1-208-799-11	METAL CHIP	5.1K	0.50%	1/10W
R106	1-208-822-11	METAL CHIP	47K	0.50%	1/10W
R107	1-216-627-11	METAL CHIP	100	0.50%	1/10W
R108	1-208-814-11	METAL CHIP	22K	0.50%	1/10W
R116	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R117	1-216-121-91	METAL GLAZE	1M	5%	1/10W
R118	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R119	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R120	1-216-121-91	METAL GLAZE	1M	5%	1/10W
R121	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R122	1-208-812-11	METAL CHIP	18K	0.50%	1/10W
R123	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W
R124	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W
R125	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R126	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R127	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R128	1-208-774-11	METAL CHIP	470	0.50%	1/10W
R129	1-216-635-11	METAL CHIP	220	0.50%	1/10W
R130	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R131	1-216-665-11	METAL CHIP	3.9K	0.50%	1/10W
R132	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W
R133	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R134	1-216-627-11	METAL CHIP	100	0.50%	1/10W
R141	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R142	1-216-025-91	METAL GLAZE	100	5%	1/10W
R143	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R145	1-216-025-91	METAL GLAZE	100	5%	1/10W
R146	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R148	1-208-814-11	METAL CHIP	22K	0.50%	1/10W
R149	1-208-814-11	METAL CHIP	22K	0.50%	1/10W
R150	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R201	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R202	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R203	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W
R204	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R205	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R206	1-216-073-00	METAL GLAZE	10K	5%	1/10W

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REF. NO.	PART NO.	DESCRIPTION			REMARK
R207	1-208-814-11	METAL CHIP	22K	0.50%	1/10W
R208	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R209	1-216-013-00	METAL GLAZE	33	5%	1/10W
R210	1-216-045-00	METAL GLAZE	680	5%	1/10W
R211	1-216-037-00	METAL GLAZE	330	5%	1/10W
R212	1-208-814-11	METAL CHIP	22K	0.50%	1/10W
R213	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R214	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R215	1-216-037-00	METAL GLAZE	330	5%	1/10W
R216	1-216-013-00	METAL GLAZE	33	5%	1/10W
R217	1-216-663-11	METAL CHIP	3.3K	0.50%	1/10W
R218	1-216-627-11	METAL CHIP	100	0.50%	1/10W
R219	1-216-023-00	METAL GLAZE	82	5%	1/10W
R220	1-216-045-00	METAL GLAZE	680	5%	1/10W
R221	1-216-035-00	METAL GLAZE	270	5%	1/10W
R222	1-216-627-11	METAL CHIP	100	0.50%	1/10W
R223	1-216-035-00	METAL GLAZE	270	5%	1/10W
R224	1-216-085-00	METAL GLAZE	33K	5%	1/10W
R225	1-216-075-00	METAL GLAZE	12K	5%	1/10W
R226	1-216-077-00	METAL GLAZE	15K	5%	1/10W
R227	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R228	1-216-043-91	METAL GLAZE	560	5%	1/10W
R229	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R230	1-208-814-11	METAL CHIP	22K	0.50%	1/10W
R231	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R232	1-216-627-11	METAL CHIP	100	0.50%	1/10W
R233	1-216-641-11	METAL CHIP	390	0.50%	1/10W
R234	1-216-085-00	METAL GLAZE	33K	5%	1/10W
R235	1-216-075-00	METAL GLAZE	12K	5%	1/10W
R236	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R237	1-216-077-00	METAL GLAZE	15K	5%	1/10W
R238	1-216-043-91	METAL GLAZE	560	5%	1/10W
R239	1-216-627-11	METAL CHIP	100	0.50%	1/10W
R240	1-216-627-11	METAL CHIP	100	0.50%	1/10W
R241	1-216-045-00	METAL GLAZE	680	5%	1/10W
R242	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R244	1-216-635-11	METAL CHIP	220	0.50%	1/10W
R245	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W
R246	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R247	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R248	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W
R290	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R301	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R302	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R303	1-208-774-11	METAL CHIP	470	0.50%	1/10W
R304	1-216-119-00	METAL GLAZE	820K	5%	1/10W
R305	1-216-005-00	METAL GLAZE	15	5%	1/10W
R306	1-208-822-11	METAL CHIP	47K	0.50%	1/10W
R307	1-216-109-00	METAL GLAZE	330K	5%	1/10W
R308	1-216-627-11	METAL CHIP	100	0.50%	1/10W
R309	1-216-037-00	METAL GLAZE	330	5%	1/10W
R310	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W
R311	1-216-037-00	METAL GLAZE	330	5%	1/10W
R312	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W
R313	1-216-037-00	METAL GLAZE	330	5%	1/10W
R314	1-216-059-00	METAL GLAZE	2.7K	5%	1/10W
R315	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W
R316	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R317	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R318	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W
R319	1-216-017-91	METAL GLAZE	47	5%	1/10W
R320	1-216-043-91	METAL GLAZE	560	5%	1/10W
R321	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R322	1-216-689-11	METAL CHIP	39K	0.50%	1/10W
R323	1-216-077-00	METAL GLAZE	15K	5%	1/10W
R324	1-208-812-11	METAL CHIP	18K	0.50%	1/10W
R325	1-208-814-11	METAL CHIP	22K	0.50%	1/10W
R326	1-208-814-11	METAL CHIP	22K	0.50%	1/10W
R327	1-208-812-11	METAL CHIP	18K	0.50%	1/10W
R328	1-208-814-11	METAL CHIP	22K	0.50%	1/10W
R329	1-208-814-11	METAL CHIP	22K	0.50%	1/10W
R330	1-208-814-11	METAL CHIP	22K	0.50%	1/10W
R331	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W
R332	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W
R333	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R334	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R335	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R336	1-208-822-11	METAL CHIP	47K	0.50%	1/10W
R337	1-208-822-11	METAL CHIP	47K	0.50%	1/10W
R338	1-208-822-11	METAL CHIP	47K	0.50%	1/10W
R339	1-216-017-91	METAL GLAZE	47	5%	1/10W
R340	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R341	1-208-822-11	METAL CHIP	47K	0.50%	1/10W
R342	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R343	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R344	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W
R345	1-216-109-00	METAL GLAZE	330K	5%	1/10W
R346	1-216-627-11	METAL CHIP	100	0.50%	1/10W
R347	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R348	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R349	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R350	1-216-001-00	METAL GLAZE	10	5%	1/10W
R351	1-216-095-00	METAL GLAZE	82K	5%	1/10W
R352	1-208-822-11	METAL CHIP	47K	0.50%	1/10W
R353	1-216-095-00	METAL GLAZE	82K	5%	1/10W
R354	1-216-001-00	METAL GLAZE	10	5%	1/10W
R355	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R356	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R357	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W
R358	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R359	1-216-017-91	METAL GLAZE	47	5%	1/10W
R360	1-216-095-00	METAL GLAZE	82K	5%	1/10W
R361	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R362	1-216-075-00	METAL GLAZE	12K	5%	1/10W
R363	1-216-023-00	METAL GLAZE	82	5%	1/10W
R364	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W
R365	1-216-627-11	METAL CHIP	100	0.50%	1/10W
R366	1-216-627-11	METAL CHIP	100	0.50%	1/10W
R367	1-208-812-11	METAL CHIP	18K	0.50%	1/10W
R368	1-216-047-91	METAL GLAZE	820	5%	1/10W
R369	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R370	1-216-627-11	METAL CHIP	100	0.50%	1/10W
R371	1-216-665-11	METAL CHIP	3.9K	0.50%	1/10W
R372	1-216-627-11	METAL CHIP	100	0.50%	1/10W
R373	1-216-627-11	METAL CHIP	100	0.50%	1/10W
R374	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W
R375	1-216-627-11	METAL CHIP	100	0.50%	1/10W
R376	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R377	1-216-083-00	METAL GLAZE	27K	5%	1/10W
R378	1-216-091-00	METAL GLAZE	56K	5%	1/10W
R379	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W
R380	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R381	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W
R382	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R383	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R384	1-216-043-91	METAL GLAZE	560	5%	1/10W
R385	1-208-812-11	METAL CHIP	18K	0.50%	1/10W
R386	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R387	1-216-635-11	METAL CHIP	220	0.50%	1/10W
R388	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R389	1-216-635-11	METAL CHIP	220	0.50%	1/10W
R390	1-216-045-00	METAL GLAZE	680	5%	1/10W
R391	1-216-043-91	METAL GLAZE	560	5%	1/10W
R392	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R393	1-216-013-00	METAL GLAZE	33	5%	1/10W
R394	1-216-013-00	METAL GLAZE	33	5%	1/10W

REF. NO.	PART NO.	DESCRIPTION			REMARK
R395	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R396	1-216-055-00	METAL GLAZE	1.8K	5%	1/10W
R397	1-216-047-91	METAL GLAZE	820	5%	1/10W
R398	1-216-013-00	METAL GLAZE	33	5%	1/10W
R399	1-216-013-00	METAL GLAZE	33	5%	1/10W
R402	1-216-025-91	METAL GLAZE	100	5%	1/10W
R403	1-216-025-91	METAL GLAZE	100	5%	1/10W
R404	1-208-824-11	METAL CHIP	56K	0.50%	1/10W
R405	1-208-822-11	METAL CHIP	47K	0.50%	1/10W
R406	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R407	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R408	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R409	1-216-041-00	METAL GLAZE	470	5%	1/10W
R410	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W
R411	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W
R412	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W
R413	1-216-025-91	METAL GLAZE	100	5%	1/10W
R414	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R415	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R416	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R417	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R418	1-216-025-91	METAL GLAZE	100	5%	1/10W
R419	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W
R420	1-216-085-00	METAL GLAZE	33K	5%	1/10W
R421	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R422	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R423	1-216-041-00	METAL GLAZE	470	5%	1/10W
R424	1-216-025-91	METAL GLAZE	100	5%	1/10W
R425	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R426	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R427	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R428	1-216-041-00	METAL GLAZE	470	5%	1/10W
R429	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R550	1-216-025-91	METAL GLAZE	100	5%	1/10W
R584	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R597	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R598	1-216-025-91	METAL GLAZE	100	5%	1/10W
R599	1-216-025-91	METAL GLAZE	100	5%	1/10W
R611	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R623	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R624	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R625	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R626	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R627	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R628	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R629	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R630	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R631	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R632	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R633	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R634	1-216-041-00	METAL GLAZE	470	5%	1/10W
R635	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R636	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R637	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R638	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R639	1-216-025-91	METAL GLAZE	100	5%	1/10W
R640	1-216-025-91	METAL GLAZE	100	5%	1/10W
R641	1-216-025-91	METAL GLAZE	100	5%	1/10W
R642	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R643	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R644	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R645	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R646	1-216-077-00	METAL GLAZE	15K	5%	1/10W
R647	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R648	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R649	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R650	1-216-624-11	METAL CHIP	75	0.50%	1/10W
R651	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R652	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R653	1-216-025-91	METAL GLAZE	100	5%	1/10W
R654	1-216-121-91	METAL GLAZE	1M	5%	1/10W
R655	1-216-627-11	METAL CHIP	100	0.50%	1/10W
R656	1-216-627-11	METAL CHIP	100	0.50%	1/10W
R658	1-216-025-91	METAL GLAZE	100	5%	1/10W
R659	1-216-025-91	METAL GLAZE	100	5%	1/10W
R660	1-216-624-11	METAL CHIP	75	0.50%	1/10W
R661	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R663	1-216-001-00	METAL GLAZE	10	5%	1/10W
R664	1-216-017-91	METAL GLAZE	47	5%	1/10W
R665	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R686	1-216-025-91	METAL GLAZE	100	5%	1/10W
R700	1-216-022-00	METAL GLAZE	75	5%	1/10W
R701	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R702	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R703	1-216-025-91	METAL GLAZE	100	5%	1/10W
R704	1-216-121-91	METAL GLAZE	1M	5%	1/10W
R705	1-216-627-11	METAL CHIP	100	0.50%	1/10W
R706	1-216-627-11	METAL CHIP	100	0.50%	1/10W
R722	1-216-025-91	METAL GLAZE	100	5%	1/10W
R723	1-216-025-91	METAL GLAZE	100	5%	1/10W
R724	1-216-624-11	METAL CHIP	75	0.50%	1/10W
R725	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R727	1-216-001-00	METAL GLAZE	10	5%	1/10W
R728	1-216-017-91	METAL GLAZE	47	5%	1/10W
R729	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R730	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R750	1-216-022-00	METAL GLAZE	75	5%	1/10W
R751	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R752	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R753	1-216-025-91	METAL GLAZE	100	5%	1/10W
R755	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R756	1-216-121-91	METAL GLAZE	1M	5%	1/10W
R757	1-216-627-11	METAL CHIP	100	0.50%	1/10W
R758	1-216-627-11	METAL CHIP	100	0.50%	1/10W
R759	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W
R760	1-216-665-11	METAL CHIP	3.9K	0.50%	1/10W
R761	1-208-774-11	METAL CHIP	470	0.50%	1/10W
R762	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W
R763	1-216-025-91	METAL GLAZE	100	5%	1/10W
R764	1-216-025-91	METAL GLAZE	100	5%	1/10W
R765	1-216-624-11	METAL CHIP	75	0.50%	1/10W
R766	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R768	1-216-001-00	METAL GLAZE	10	5%	1/10W
R769	1-216-017-91	METAL GLAZE	47	5%	1/10W
R791	1-216-041-00	METAL GLAZE	470	5%	1/10W

<VARIABLE RESISTOR>

RV101	1-241-759-21	RES, ADJ, CERMET 220
RV102	1-241-763-11	RES, ADJ, CERMET 4.7K
RV103	1-241-767-21	RES, ADJ, CERMET 100K
RV104	1-241-767-21	RES, ADJ, CERMET 100K
RV105	1-241-763-11	RES, ADJ, CERMET 4.7K

<SWICH>

SW-1	1-570-859-11	SWITCH, SLIDE

<THERMISTOR>

TH101	1-807-971-11	THERMISTOR

<CRYSTAL>

X101	1-567-307-11	OSCILLATOR, CRYSTAL
X102	1-567-131-00	OSCILLATOR, CRYSTAL

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PB **PC** **PA**

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie.

The componants identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

REF. NO.	PART NO.	DESCRIPTION			REMARK
	*A-1190-195-B	PB BOARD, COMPLETE **********************			
		<CONNECTOR>			
CN241	*1-564-506-11	PLUG, CONNECTOR 3P			
		<TRANSFORMER FLYBACK>			
FBT10	⚠1-453-160-12	TRANSFORMER ASSY, FLYBACK			
FBT11	⚠1-453-160-12	TRANSFORMER ASSY, FLYBACK			
		<NEON LAMP>			
NL10	1-519-108-99	LAMP, NEON			
	*7-322-065-72	RUBBER, RTV (SE-9168) (130G) ; NL10			
NL11	1-519-108-99	LAMP, NEON			
	*7-322-065-72	RUBBER, RTV (SE-9168) (130G) ; NL11			

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REF. NO.	PART NO.	DESCRIPTION			REMARK
	*A-1190-196-A	PC BOARD, COMPLETE ********************			
		<TRANSISTOR>			
Q1	8-729-820-71	TRANSISTOR 2SC3998CA			

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REF. NO.	PART NO.	DESCRIPTION			REMARK
	*A-1195-081-A	PA BOARD, COMPLETE *********************			
	4-382-854-11	SCREW (M3X10), P, SW (+)			
	7-322-065-19	RUBBER, SILICON RTV (KE490W)			
		<CAPACITOR>			
C1	1-124-903-11	ELECT	1µF	20%	50V
C2	1-124-903-11	ELECT	1µF	20%	50V
C3	1-126-963-11	ELECT	4.7µF	20%	50V
C4	1-126-963-11	ELECT	4.7µF	20%	50V
C5	1-126-963-11	ELECT	4.7µF	20%	50V
C6	1-126-963-11	ELECT	4.7µF	20%	50V
C7	1-124-907-11	ELECT	10µF	20%	50V
C8	1-130-471-00	FILM	0.001µF	5%	50V
C9	1-104-663-11	ELECT	33µF	20%	16V
C10	1-126-961-11	ELECT	2.2µF	20%	50V
C11	1-136-165-00	FILM	0.1µF	5%	50V
C12	1-124-907-11	ELECT	10µF	20%	50V
C13	1-136-169-00	FILM	0.22µF	5%	50V
C14	1-124-907-11	ELECT	10µF	20%	50V
C15	1-124-119-00	ELECT	330µF	20%	16V
C16	1-102-973-00	CERAMIC	100pF	5%	50V
C17	1-136-165-00	FILM	0.1µF	5%	50V
C18	1-136-165-00	FILM	0.1µF	5%	50V
C19	1-136-165-00	FILM	0.1µF	5%	50V
C20	1-136-165-00	FILM	0.1µF	5%	50V
C21	1-101-004-00	CERAMIC	0.01µF	50V	
C22	1-102-973-00	CERAMIC	100pF	5%	50V
C23	1-124-907-11	ELECT	10µF	20%	50V
C24	1-124-907-11	ELECT	10µF	20%	50V
C25	1-136-169-00	FILM	0.22µF	5%	50V
C26	1-102-978-00	CERAMIC	220pF	5%	50V
C27	1-124-907-11	ELECT	10µF	20%	50V
C28	1-124-907-11	ELECT	10µF	20%	50V
C29	1-124-907-11	ELECT	10µF	20%	50V
C30	1-101-004-00	CERAMIC	0.01µF	50V	

REF. NO.	PART NO.	DESCRIPTION			REMARK
C31	1-101-004-00	CERAMIC	0.01µF	50V	
C32	1-102-973-00	CERAMIC	100pF	5%	50V
C33	1-102-973-00	CERAMIC	100pF	5%	50V
C34	1-102-973-00	CERAMIC	100pF	5%	50V
C35	1-124-119-00	ELECT	330µF	20%	16V
C36	1-137-364-11	FILM	0.001µF	5%	50V
C37	1-104-999-11	MYLAR	0.1µF	10%	200V
C38	1-124-903-11	ELECT	1µF	20%	50V
C39	1-124-903-11	ELECT	1µF	20%	50V
C40	1-137-366-11	FILM	0.0022µF	5%	50V
C41	1-126-600-11	ELECT	100µF	20%	160V
C42	⚠1-136-722-11	FILM	0.008µF	3%	1.6KV
C43	1-136-561-11	FILM	0.0068µF	10%	630V
C45	1-137-364-11	FILM	0.001µF	5%	50V
C46	1-104-665-11	ELECT	100µF	20%	16V
C47	1-124-903-11	ELECT	1µF	20%	50V
C49	1-136-561-11	FILM	0.0068µF	10%	630V
C50	1-137-364-11	FILM	0.001µF	5%	50V
C51	1-126-600-11	ELECT	100µF	20%	160V
C52	1-126-600-11	ELECT	100µF	20%	160V
C53	1-102-030-00	CERAMIC	330pF	10%	500V
C54	⚠1-136-729-11	FILM	1.5µF	5%	400V
C55	1-124-903-11	ELECT	1µF	20%	50V
C56	1-108-692-11	MYLAR	0.01µF	10%	200V
C57	1-104-999-11	MYLAR	0.1µF	10%	200V
C58	1-104-664-11	ELECT	47µF	20%	16V
C59	1-136-165-00	FILM	0.1µF	5%	50V
C60	1-101-004-00	CERAMIC	0.01µF	50V	
C61	1-101-004-00	CERAMIC	0.01µF	50V	
C62	1-136-165-00	FILM	0.1µF	5%	50V
C63	1-136-165-00	FILM	0.1µF	5%	50V
C65	1-136-103-00	FILM	0.1µF	5%	200V
C67	1-101-004-00	CERAMIC	0.01µF	50V	
C68	1-101-004-00	CERAMIC	0.01µF	50V	
C70	1-101-004-00	CERAMIC	0.01µF	50V	
C71	1-102-973-00	CERAMIC	100pF	5%	50V
C72	1-102-973-00	CERAMIC	100pF	5%	50V
C73	1-104-665-11	ELECT	100µF	20%	16V
C74	1-124-478-11	ELECT	100µF	20%	25V
C75	1-124-563-11	ELECT	2200µF	20%	25V
C78	1-126-965-11	ELECT	22µF	20%	50V
C80	1-124-907-11	ELECT	10µF	20%	50V
C81	1-102-973-00	CERAMIC	100pF	5%	50V
		<CONNECTOR>			
CN281	*1-564-518-11	PLUG, CONNECTOR 3P			
CN282	*1-564-520-11	PLUG, CONNECTOR 5P			
CN283	*1-564-526-11	PLUG, CONNECTOR 11P			
CN284	*1-564-528-11	PLUG, CONNECTOR 13P			
CN285	1-564-523-11	PLUG, CONNECTOR 8P			
CN286	*1-506-348-99	PIN, CONNECTOR 6P			
CN287	*1-564-521-11	PLUG, CONNECTOR 6P			
CN288	*1-564-518-11	PLUG, CONNECTOR 3P			
CN289	1-508-765-00	PIN, CONNECTOR (5mm PITCH) 3P			
CN290	1-506-348-99	PIN, CONNECTOR 4P			
CN296	1-564-517-11	PLUG, CONNECTOR 2P			
		<DIODE>			
D1	8-719-911-19	DIODE 1SS119-25			
D2	8-719-911-19	DIODE 1SS119-25			
D3	8-719-911-19	DIODE 1SS119-25			
D4	8-719-911-19	DIODE 1SS119-25			
D5	8-719-109-85	DIODE RD5.1ESB2			
D6	8-719-911-19	DIODE 1SS119-25			
D7	8-719-110-41	DIODE RD15ESB2			
D8	8-719-110-36	DIODE RD13ESB2			

The componants identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie.

- The components identified by ⧓ in this manual have been carefully factory selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

PA

REF. NO.	PART NO.	DESCRIPTION	REMARK
D9	8-719-911-19	DIODE 1SS119-25	
D10	8-719-109-85	DIODE RD5.1ESB2	
D11	8-719-109-66	DIODE RD3.3ESB2	
D12	8-719-109-85	DIODE RD5.1ESB2	
D13	8-719-911-19	DIODE 1SS119-25	
D14	8-719-911-19	DIODE 1SS119-25	
D15	8-719-911-19	DIODE 1SS119-25	
D16	8-719-110-36	DIODE RD13ESB2	
D17	8-719-945-81	DIODE ERC06-15SA	
D18	8-719-911-19	DIODE 1SS119-25	
D19	8-719-945-81	DIODE ERC06-15SA	
D20	8-719-911-19	DIODE 1SS119-25	
D21	8-719-911-19	DIODE 1SS119-25	
D22	8-719-110-36	DIODE RD13ESB2	
D23	8-719-920-67	DIODE ERC91-02	
D24	8-719-911-19	DIODE 1SS119-25	
D25	8-719-911-19	DIODE 1SS119-25	
D26	8-719-920-67	DIODE ERC91-02	
D27	8-719-911-19	DIODE 1SS119-25	
D28	8-719-911-19	DIODE 1SS119-25	
D29	8-719-911-19	DIODE 1SS119-25	
D30	8-719-110-78	DIODE RD33ESB2	
D31	8-719-911-19	DIODE 1SS119-25	
D32	8-719-900-95	DIODE V09G	
D33	8-719-911-19	DIODE 1SS119-25	
D34	8-719-920-67	DIODE ERC91-02	
D35	8-719-911-19	DIODE 1SS119-25	
D36	8-719-110-36	DIODE RD13ESB2	
D37	8-719-911-19	DIODE 1SS119-25	

<FERRITE BEAD>

REF. NO.	PART NO.	DESCRIPTION	REMARK
FB1	1-410-396-41	FERRITE BEAD INDUCTOR 0.45µH	
FB2	1-410-396-41	FERRITE BEAD INDUCTOR 0.45µH	
FB3	1-410-396-41	FERRITE BEAD INDUCTOR 0.45µH	

<IC>

REF. NO.	PART NO.	DESCRIPTION	REMARK
IC1	8-759-503-91	IC TL082ACP	
	7-322-065-19	RUBBER, SILICON RTV (KE490W) ; IC1	
IC2	8-759-729-03	IC NJM2903D	
IC3	8-759-729-03	IC NJM2903D	
IC4	8-759-729-03	IC NJM2903D	
IC5	8-759-231-58	IC TA7812S	
IC6	8-759-929-65	IC LM7912CT	
IC7	8-759-240-40	IC TC4040BP	
IC8	8-759-045-72	IC MC14572UBCP	
IC9	8-759-140-11	IC µPD4011BC	
IC10	8-759-040-01	IC MC14001BCP	
IC11	8-759-503-91	IC TL082ACP	
IC12	8-759-729-03	IC NJM2903D	
IC13	8-759-908-15	IC TL431CLP	
IC14	8-759-145-58	IC µPC4558C	

<COIL>

REF. NO.	PART NO.	DESCRIPTION	REMARK
L1	⚠ 1-409-543-12	COIL, CHOKE 420µH	
L2	⚠ 1-409-543-12	COIL, CHOKE 420µH	
L3	1-459-614-11	COIL, CHOKE 90µH	
L4	1-459-614-11	COIL, CHOKE 90µH	
L5	1-459-155-00	COIL (WITH CORE) 45µH	
L6	1-459-155-00	COIL (WITH CORE) 45µH	
L7	1-412-525-31	INDUCTOR 10µH	
L8	1-412-525-31	INDUCTOR 10µH	

<NEON LAMP>

REF. NO.	PART NO.	DESCRIPTION	REMARK
NL1	1-519-108-99	LAMP, NEON	

<TRANSISTOR>

REF. NO.	PART NO.	DESCRIPTION	REMARK
Q1	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q2	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q3	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q4	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q5	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q6	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q7	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q8	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q9	8-729-140-96	TRANSISTOR 2SD774-34	
Q10	8-729-140-97	TRANSISTOR 2SB734-34	
Q11	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q12	8-729-900-65	TRANSISTOR DTA144ES	
Q13	8-729-900-89	TRANSISTOR DTC144ES	
Q15	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q16	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q17	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q18	8-729-804-48	TRANSISTOR 2SC3675	
Q19	8-729-024-38	TRANSISTOR IRFIP250	
Q20	8-729-143-42	TRANSISTOR 2SK929	
Q21	8-729-207-89	TRANSISTOR 2SA1358-Y	
Q22	8-729-119-80	TRANSISTOR 2SC2688-LK	

<RESISTOR>

REF. NO.	PART NO.	DESCRIPTION			REMARK
⧓R1	⚠	METAL			1/4W
R2	1-247-863-91	CARBON	22K	5%	1/4W
R3	1-249-439-11	CARBON	68K	5%	1/4W
⧓R4	⚠	METAL			1/4W
R5	1-247-863-91	CARBON	22K	5%	1/4W
R6	1-249-439-11	CARBON	68K	5%	1/4W
R7	1-247-863-91	CARBON	22K	5%	1/4W
R8	1-247-863-91	CARBON	22K	5%	1/4W
R9	1-249-423-11	CARBON	3.3K	5%	1/4W
R10	1-249-429-11	CARBON	10K	5%	1/4W
R12	1-249-429-11	CARBON	10K	5%	1/4W
R13	1-249-429-11	CARBON	10K	5%	1/4W
R14	1-249-429-11	CARBON	10K	5%	1/4W
R15	1-247-863-91	CARBON	22K	5%	1/4W
R16	1-249-425-11	CARBON	4.7K	5%	1/4W
R17	1-247-807-31	CARBON	100	5%	1/4W
R18	1-249-429-11	CARBON	10K	5%	1/4W
R19	1-249-429-11	CARBON	10K	5%	1/4W
R20	1-247-863-91	CARBON	22K	5%	1/4W
R21	1-249-441-11	CARBON	100K	5%	1/4W
R22	1-215-463-00	METAL	56K	1%	1/4W
R23	1-215-455-00	METAL	27K	1%	1/4W
R24	1-249-429-11	CARBON	10K	5%	1/4W
R26	1-249-417-11	CARBON	1K	5%	1/4W
R27	1-249-429-11	CARBON	10K	5%	1/4W
R28	1-215-423-00	METAL	1.2K	1%	1/4W
⧓R29	⚠	METAL			1/4W
⧓R30	⚠	METAL			1/4W
R31	1-249-436-11	CARBON	39K	5%	1/4W
R32	1-215-473-00	METAL	150K	1%	1/4W
⧓R33	⚠	METAL			1/4W
⧓R34	⚠	METAL			1/4W
R35	1-249-417-11	CARBON	1K	5%	1/4W
R36	1-249-423-11	CARBON	3.3K	5%	1/4W
R37	1-249-429-11	CARBON	10K	5%	1/4W
R38	1-249-429-11	CARBON	10K	5%	1/4W
R39	1-249-429-11	CARBON	10K	5%	1/4W
R41	1-249-431-11	CARBON	15K	5%	1/4W
R42	1-249-417-11	CARBON	1K	5%	1/4W
R43	1-215-461-00	METAL	47K	1%	1/4W
R44	1-215-432-00	METAL	3K	1%	1/4W
R45	1-215-432-00	METAL	3K	1%	1/4W

PA **AM**

- The components identified by ⊠ in this manual have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

The componants identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

REF. NO.	PART NO.	DESCRIPTION			REMARK	
R46	1-215-432-00	METAL	3K	1%	1/4W	
R47	1-215-432-00	METAL	3K	1%	1/4W	
R48	1-249-417-11	CARBON	1K	5%	1/4W	
R49	1-249-417-11	CARBON	1K	5%	1/4W	
R50	1-249-429-11	CARBON	10K	5%	1/4W	
R51	1-249-423-11	CARBON	3.3K	5%	1/4W	
R52	1-249-423-11	CARBON	3.3K	5%	1/4W	
R53	1-249-417-11	CARBON	1K	5%	1/4W	
R54	1-249-417-11	CARBON	1K	5%	1/4W	
R55	1-249-423-11	CARBON	3.3K	5%	1/4W	
R56	1-247-895-91	CARBON	470K	5%	1/4W	
R57	1-249-417-11	CARBON	1K	5%	1/4W	
R58	1-249-437-11	CARBON	47K	5%	1/4W	
R59	1-247-903-00	CARBON	1M	5%	1/4W	
R61	1-249-417-11	CARBON	1K	5%	1/4W	
R62	1-247-807-31	CARBON	100	5%	1/4W	
R63	1-249-411-11	CARBON	330	5%	1/4W	
R64	1-215-456-00	METAL	30K	1%	1/4W	
R65	1-215-445-00	METAL	10K	1%	1/4W	
R66	1-215-445-00	METAL	10K	1%	1/4W	
R67	1-247-903-00	CARBON	1M	5%	1/4W	
R68	1-249-417-11	CARBON	1K	5%	1/4W	
R69	1-215-455-00	METAL	27K	1%	1/4W	
R71	1-249-429-11	CARBON	10K	5%	1/4W	
R72	1-247-807-31	CARBON	100	5%	1/4W	
R73	1-249-423-11	CARBON	3.3K	5%	1/4W	
R74	1-249-417-11	CARBON	1K	5%	1/4W	
R75	1-247-807-31	CARBON	100	5%	1/4W	
R76	1-247-807-31	CARBON	100	5%	1/4W	
R77	1-249-937-11	CARBON	3.9K	5%	1/4W	F
R78	1-249-431-11	CARBON	15K	5%	1/4W	
R79	1-249-431-11	CARBON	15K	5%	1/4W	
R80	1-249-417-11	CARBON	1K	5%	1/4W	
R81	1-249-441-11	CARBON	100K	5%	1/4W	
R82	1-249-441-11	CARBON	100K	5%	1/4W	
R83	1-249-422-11	CARBON	2.7K	5%	1/4W	
R84	1-249-431-11	CARBON	15K	5%	1/4W	
R85	1-215-892-11	METAL OXIDE	1K	5%	2W	F
R86	1-215-921-11	METAL OXIDE	4.7K	5%	3W	F
R88	1-249-441-11	CARBON	100K	5%	1/4W	
R89	1-215-905-11	METAL OXIDE	10	5%	3W	F
R90	1-215-895-11	METAL OXIDE	3.3K	5%	2W	F
R91	1-215-895-11	METAL OXIDE	3.3K	5%	2W	F
R92	1-215-870-11	METAL OXIDE	1.5K	5%	1W	F
R93	1-215-895-11	METAL OXIDE	3.3K	5%	2W	F
R94	1-215-863-11	METAL OXIDE	100	5%	1W	F
R95	1-215-461-00	METAL	47K	1%	1/4W	
R96	1-249-437-11	CARBON	47K	5%	1/4W	
R97	1-247-863-91	CARBON	22K	5%	1/4W	
R98	1-215-863-11	METAL OXIDE	100	5%	1W	F
R99	1-247-725-11	CARBON	10K	5%	1/4W	F
R101	1-247-807-31	CARBON	100	5%	1/4W	
R102	1-249-441-11	CARBON	100K	5%	1/4W	
R103	1-249-417-11	CARBON	1K	5%	1/4W	
R104	1-249-441-11	CARBON	100K	5%	1/4W	
R105	1-249-429-11	CARBON	10K	5%	1/4W	
R106	1-249-425-11	CARBON	4.7K	5%	1/4W	
R107	1-247-863-91	CARBON	22K	5%	1/4W	
R108	1-249-441-11	CARBON	100K	5%	1/4W	
R109	1-249-437-11	CARBON	47K	5%	1/4W	
R110	1-249-441-11	CARBON	100K	5%	1/4W	
R111	1-249-437-11	CARBON	47K	5%	1/4W	
R116	1-215-477-00	METAL	220K	1%	1/4W	
R117	1-247-725-11	CARBON	10K	5%	1/4W	F
R118	1-202-726-00	SOLID	3.9M	20%	1/2W	
R121	1-215-475-00	METAL	180K	1%	1/4W	
R122	1-215-475-00	METAL	180K	1%	1/4W	
R124	1-249-425-11	CARBON	4.7K	5%	1/4W	

REF. NO.	PART NO.	DESCRIPTION			REMARK	
R125	1-247-807-31	CARBON	100	5%	1/4W	
R126	1-249-429-11	CARBON	10K	5%	1/4W	
R127	1-247-807-31	CARBON	100	5%	1/4W	
R128	1-247-807-31	CARBON	100	5%	1/4W	
⊠R131	⚠	METAL			1/4W	
⊠R132	⚠	METAL			1/4W	
R133	1-215-905-11	METAL OXIDE	10	5%	3W	F
R134	1-215-905-11	METAL OXIDE	10	5%	3W	F
R135	1-215-905-11	METAL OXIDE	10	5%	3W	F
R136	1-202-726-00	SOLID	3.9M	20%	1/2W	
R137	1-249-401-11	CARBON	47	5%	1/4W	F
R138	1-249-417-11	CARBON	1K	5%	1/4W	
R139	1-247-807-31	CARBON	100	5%	1/4W	
R140	1-247-807-31	CARBON	100	5%	1/4W	
R141	1-247-807-31	CARBON	100	5%	1/4W	
R142	1-249-417-11	CARBON	1K	5%	1/4W	
R143	1-215-432-00	METAL	3K	1%	1/4W	
R144	1-215-432-00	METAL	3K	1%	1/4W	
R150	1-247-863-91	CARBON	22K	5%	1/4W	
R151	1-215-421-00	METAL	1K	1%	1/4W	
R152	1-215-445-00	METAL	10K	1%	1/4W	
R153	1-249-417-11	CARBON	1K	5%	1/4W	
R154	1-249-417-11	CARBON	1K	5%	1/4W	
R155	1-247-807-31	CARBON	100	5%	1/4W	

<TRANSFORMER>

T1	1-437-144-11	TRANSFORMER, FERRITE (HDT)

<CRYSTAL>

X1	1-578-768-11	VIBLATOR, CERAMIC

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*** A-1292-492-A AM BOARD, COMPLETE**
****

<CAPACITOR>

C1	1-101-004-00	CERAMIC	0.01μF	50V

<CONNECTOR>

CN1	* 1-766-306-11	SOCKET, PC CONNECTOR 64P
CN2	* 1-766-306-11	SOCKET, PC CONNECTOR 64P
CN3	* 1-766-306-11	SOCKET, PC CONNECTOR 64P
CN4	* 1-766-306-11	SOCKET, PC CONNECTOR 64P
CN5	* 1-766-306-11	SOCKET, PC CONNECTOR 64P
CN6	* 1-766-306-11	SOCKET, PC CONNECTOR 64P
CN7	* 1-766-306-11	SOCKET, PC CONNECTOR 64P
CN8	* 1-766-306-11	SOCKET, PC CONNECTOR 64P
CN10	* 1-564-507-11	PLUG, CONNECTOR 4P
CN11	* 1-564-509-11	PLUG, CONNECTOR 6P
CN14	* 1-564-515-11	PLUG, CONNECTOR 12P
CN15	* 1-564-513-11	PLUG, CONNECTOR 10P
CN17	* 1-564-512-11	PLUG, CONNECTOR 9P
CN18	* 1-564-513-11	PLUG, CONNECTOR 10P

<IC>

IC1	8-759-104-57	IC μPD74HC138C

<JACK>

J4	* 1-526-575-00	SOCKET, PLUG 1P
J5	* 1-526-575-00	SOCKET, PLUG 1P

REF. NO.	PART NO.	DESCRIPTION			REMARK
J6	* 1-526-575-00	SOCKET, PLUG 1P			
		<TRANSISTOR>			
Q1	8-729-900-89	TRANSISTOR DTC144ES			
Q2	8-729-900-89	TRANSISTOR DTC144ES			
		<RESISTOR>			
R4	1-247-807-31	CARBON	100	5%	1/4W
R5	1-247-807-31	CARBON	100	5%	1/4W
R6	1-247-807-31	CARBON	100	5%	1/4W
R8	1-249-425-11	CARBON	4.7K	5%	1/4W
R9	1-249-425-11	CARBON	4.7K	5%	1/4W
R10	1-249-425-11	CARBON	4.7K	5%	1/4W
R12	1-247-807-31	CARBON	100	5%	1/4W

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* A-1297-209-A AA BOARD, COMPLETE
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* 7-322-065-72 RUBBER, RTV (SE-9168) (130G)

REF. NO.	PART NO.	DESCRIPTION			REMARK
		<CAPACITOR>			
C1	1-164-232-11	CERAMIC CHIP	0.01μF	10%	50V
C2	1-104-665-11	ELECT	100μF	20%	16V
C3	1-104-665-11	ELECT	100μF	20%	16V
C4	1-126-942-61	ELECT	1000μF	20%	16V
C5	1-104-665-11	ELECT	100μF	20%	16V
C6	1-126-942-61	ELECT	1000μF	20%	16V
C7	1-164-232-11	CERAMIC CHIP	0.01μF	10%	50V
C8	1-104-665-11	ELECT	100μF	20%	16V
C9	1-124-120-11	ELECT	220μF	20%	16V
C10	1-104-665-11	ELECT	100μF	20%	16V
C11	1-164-232-11	CERAMIC CHIP	0.01μF	10%	50V
C12	1-164-232-11	CERAMIC CHIP	0.01μF	10%	50V
C13	1-124-910-11	ELECT	47μF	20%	50V
C14	1-124-910-11	ELECT	47μF	20%	50V
C15	1-124-910-11	ELECT	47μF	20%	50V
C16	1-124-122-11	ELECT	100μF	20%	50V
C17	1-124-122-11	ELECT	100μF	20%	50V
C18	1-124-907-11	ELECT	10μF	20%	50V
C19	1-124-907-11	ELECT	10μF	20%	50V
C20	1-124-907-11	ELECT	10μF	20%	50V
C21	1-126-941-11	ELECT	470μF	20%	16V
C22	1-126-941-11	ELECT	470μF	20%	16V
C23	1-126-941-11	ELECT	470μF	20%	16V
C24	1-164-232-11	CERAMIC CHIP	0.01μF	10%	50V
C25	1-124-122-11	ELECT	100μF	20%	50V
C26	1-104-665-11	ELECT	100μF	20%	16V
C27	1-124-120-11	ELECT	220μF	20%	16V
C28	1-104-665-11	ELECT	100μF	20%	16V
C29	1-164-232-11	CERAMIC CHIP	0.01μF	10%	50V
		<CONNECTOR>			
CN101	* 1-766-304-11	PIN, PC CONNECTOR 64P			
		<DIODE>			
D1	8-719-800-76	DIODE 1SS226			
D2	8-719-800-76	DIODE 1SS226			
D3	8-719-800-76	DIODE 1SS226			
D4	8-719-800-76	DIODE 1SS226			
D5	8-719-800-76	DIODE 1SS226			
D6	8-719-801-78	DIODE 1SS184			
D7	8-719-801-78	DIODE 1SS184			
D8	8-719-801-78	DIODE 1SS184			
D9	8-719-104-34	DIODE 1S2836			
D10	8-719-800-76	DIODE 1SS226			
D11	8-719-800-76	DIODE 1SS226			
D12	8-719-110-31	DIODE RD12ESB2			
D13	8-719-110-31	DIODE RD12ESB2			
		<IC>			
IC1	8-759-105-49	IC μPC319G2			
IC2	8-759-090-19	IC SN75453BPS			
IC3	8-749-010-58	IC BX6589			
IC4	8-749-010-58	IC BX6589			
IC5	8-749-010-58	IC BX6589			
IC6	8-759-090-19	IC SN75453BPS			
IC8	8-759-100-96	IC μPC4558G2			
IC9	8-759-013-86	IC MC74HC4066F			
IC10	8-759-300-71	IC HD14053BFP			
		<JACK>			
J101	1-537-736-11	TERMINAL BOARD ASSY, I/O			
		<COIL>			
L1	1-459-155-00	COIL (WITH CORE) 45μH			
L2	1-459-155-00	COIL (WITH CORE) 45μH			
		<TRANSISTOR>			
Q1	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q2	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q3	8-729-901-01	TRANSISTOR DTC144EK			
Q4	8-729-140-96	TRANSISTOR 2SD774-34			
Q5	8-729-140-97	TRANSISTOR 2SB734-34			
Q6	8-729-901-01	TRANSISTOR DTC144EK			
Q7	8-729-901-01	TRANSISTOR DTC144EK			
Q8	8-729-901-01	TRANSISTOR DTC144EK			
Q9	8-729-901-01	TRANSISTOR DTC144EK			
Q10	8-729-901-01	TRANSISTOR DTC144EK			
Q11	8-729-901-01	TRANSISTOR DTC144EK			
Q12	8-729-901-01	TRANSISTOR DTC144EK			
Q15	8-729-901-01	TRANSISTOR DTC144EK			
		<RESISTOR>			
R1	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R2	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R3	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R4	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R5	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R6	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R7	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R8	1-216-037-00	METAL GLAZE	330	5%	1/10W
R9	1-216-037-00	METAL GLAZE	330	5%	1/10W
R10	1-216-624-11	METAL CHIP	75	0.50%	1/10W
R11	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R12	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R13	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R14	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R15	1-216-037-00	METAL GLAZE	330	5%	1/10W
R16	1-216-037-00	METAL GLAZE	330	5%	1/10W
R17	1-216-624-11	METAL CHIP	75	0.50%	1/10W
R18	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R19	1-216-624-11	METAL CHIP	75	0.50%	1/10W
R20	1-216-624-11	METAL CHIP	75	0.50%	1/10W
R21	1-216-624-11	METAL CHIP	75	0.50%	1/10W
R22	1-216-047-91	METAL GLAZE	820	5%	1/10W

AA **AB**

REF. NO.	PART NO.	DESCRIPTION			REMARK
R23	1-216-047-91	METAL GLAZE	820	5%	1/10W
R24	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R25	1-216-025-91	METAL GLAZE	100	5%	1/10W
R26	1-216-025-91	METAL GLAZE	100	5%	1/10W
R27	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R28	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R29	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R30	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R31	1-216-025-91	METAL GLAZE	100	5%	1/10W
R32	1-216-031-00	METAL GLAZE	180	5%	1/10W
R33	1-216-009-00	METAL GLAZE	22	5%	1/10W
R34	1-216-025-91	METAL GLAZE	100	5%	1/10W
R35	1-216-031-00	METAL GLAZE	180	5%	1/10W
R36	1-216-009-00	METAL GLAZE	22	5%	1/10W

<RELAY>

RY1	1-515-762-11	RELAY
RY2	1-515-762-11	RELAY
RY3	1-515-762-11	RELAY
RY4	1-515-762-11	RELAY
RY5	1-515-762-11	RELAY
RY6	1-515-762-11	RELAY

<SWITCH>

SW1	1-570-145-11	SWITCH, SLIDE
SW2	1-570-145-11	SWITCH, SLIDE

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*A-1297-210-A AB BOARD, COMPLETE
****

<CAPACITOR>

C201	1-126-157-11	ELECT	10μF	20%	16V
C202	1-126-942-61	ELECT	1000μF	20%	16V
C203	1-126-157-11	ELECT	10μF	20%	16V
C204	1-126-942-61	ELECT	1000μF	20%	16V
C206	1-124-907-11	ELECT	10μF	20%	50V
C251	1-163-113-00	CERAMIC CHIP	68pF	5%	50V

<CONNECTOR>

CN111	*1-766-304-11	PIN, PC CONNECTOR 64P

<DIODE>

D201	8-719-801-78	DIODE 1SS184
D202	8-719-801-78	DIODE 1SS184
D203	8-719-801-78	DIODE 1SS184
D204	8-719-104-34	DIODE 1S2836
D205	8-719-801-78	DIODE 1SS184
D206	8-719-105-82	DIODE RD5.1M-B2

<IC>

IC201	8-759-090-19	IC SN75453BPS
IC202	8-759-011-65	IC MC74HC4053F

<JACK>

J114	1-566-849-11	CONNECTOR, (S) TERMINAL 4P

<TRANSISTOR>

REF. NO.	PART NO.	DESCRIPTION	REMARK
Q201	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q202	8-729-112-65	TRANSISTOR 2SA1462-T1Y33	
Q203	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q204	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q205	8-729-112-65	TRANSISTOR 2SA1462-T1Y33	
Q206	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q250	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q251	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q252	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q253	8-729-901-01	TRANSISTOR DTC144EK	
Q254	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q255	8-729-901-01	TRANSISTOR DTC144EK	
Q256	8-729-901-01	TRANSISTOR DTC144EK	
Q257	8-729-901-01	TRANSISTOR DTC144EK	
Q258	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q259	8-729-901-01	TRANSISTOR DTC144EK	
Q260	8-729-901-01	TRANSISTOR DTC144EK	
Q261	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q265	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q266	8-729-901-01	TRANSISTOR DTC144EK	
Q267	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q268	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q269	8-729-901-01	TRANSISTOR DTC144EK	

<RESISTOR>

R201	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R202	1-216-093-00	METAL GLAZE	68K	5%	1/10W
R203	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R204	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W
R205	1-216-029-00	METAL GLAZE	150	5%	1/10W
R206	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W
R207	1-216-025-91	METAL GLAZE	100	5%	1/10W
R208	1-216-033-00	METAL GLAZE	220	5%	1/10W
R209	1-216-045-00	METAL GLAZE	680	5%	1/10W
R211	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R212	1-216-093-00	METAL GLAZE	68K	5%	1/10W
R213	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R214	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W
R215	1-216-029-00	METAL GLAZE	150	5%	1/10W
R216	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W
R217	1-216-025-91	METAL GLAZE	100	5%	1/10W
R218	1-216-033-00	METAL GLAZE	220	5%	1/10W
R219	1-216-045-00	METAL GLAZE	680	5%	1/10W
R247	1-216-025-91	METAL GLAZE	100	5%	1/10W
R248	1-216-041-00	METAL GLAZE	470	5%	1/10W
R249	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R250	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R251	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R252	1-216-077-00	METAL GLAZE	15K	5%	1/10W
R253	1-216-037-00	METAL GLAZE	330	5%	1/10W
R254	1-216-041-00	METAL GLAZE	470	5%	1/10W
R255	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R256	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R257	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R258	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R259	1-216-037-00	METAL GLAZE	330	5%	1/10W
R260	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R261	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R262	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R263	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R264	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R265	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R266	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R267	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R268	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R269	1-216-037-00	METAL GLAZE	330	5%	1/10W
R270	1-216-041-00	METAL GLAZE	470	5%	1/10W

REF. NO.	PART NO.	DESCRIPTION			REMARK	
R271	1-216-025-91	METAL GLAZE	100	5%	1/10W	
R274	1-216-025-91	METAL GLAZE	100	5%	1/10W	
R275	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R277	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R278	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R279	1-216-037-00	METAL GLAZE	330	5%	1/10W	
R280	1-216-049-91	METAL GLAZE	1K	5%	1/10W	
R281	1-216-025-91	METAL GLAZE	100	5%	1/10W	
R282	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R283	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R284	1-216-089-91	METAL GLAZE	47K	5%	1/10W	
R285	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R286	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R287	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W	
R288	1-216-025-91	METAL GLAZE	100	5%	1/10W	
R289	1-216-295-91	CONDUCTOR, CHIP				
R290	1-215-883-11	METAL OXIDE	33	5%	2W	F
	7-322-065-19	RUBBER, SILICON RTV (KE490W) ; R290				

<RELAY>

REF. NO.	PART NO.	DESCRIPTION
RY201	1-515-762-11	RELAY

<TERMINAL BOARD>

REF. NO.	PART NO.	DESCRIPTION
TB111	1-537-748-11	TERMINAL BOARD ASSY, I/O

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*A-1297-211-A AC BOARD, COMPLETE
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<CAPACITOR>

REF. NO.	PART NO.	DESCRIPTION			REMARK
C700	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C701	1-104-665-11	ELECT	100µF	20%	16V
C702	1-104-665-11	ELECT	100µF	20%	16V
C703	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C704	1-124-907-11	ELECT	10µF	20%	50V
C705	1-126-941-11	ELECT	470µF	20%	16V
C706	1-124-907-11	ELECT	10µF	20%	50V
C707	1-124-907-11	ELECT	10µF	20%	50V
C708	1-124-122-11	ELECT	100µF	20%	50V
C710	1-124-122-11	ELECT	100µF	20%	50V
C711	1-124-907-11	ELECT	10µF	20%	50V
C712	1-126-941-11	ELECT	470µF	20%	16V
C713	1-124-122-11	ELECT	100µF	20%	50V
C715	1-124-122-11	ELECT	100µF	20%	50V
C716	1-124-907-11	ELECT	10µF	20%	50V
C717	1-126-941-11	ELECT	470µF	20%	16V
C718	1-124-122-11	ELECT	100µF	20%	50V
C720	1-124-122-11	ELECT	100µF	20%	50V
C721	1-124-907-11	ELECT	10µF	20%	50V
C722	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C723	1-124-907-11	ELECT	10µF	20%	50V
C724	1-124-907-11	ELECT	10µF	20%	50V
C725	1-124-252-00	ELECT	0.33µF	20%	50V
C726	1-126-965-11	ELECT	22µF	20%	50V
C727	1-126-965-11	ELECT	22µF	20%	50V
C728	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C729	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V

<CONNECTOR>

REF. NO.	PART NO.	DESCRIPTION
CN221	*1-766-304-11	PIN, PC CONNECTOR 64P
CN222	1-564-595-11	PLUG, CONNECTOR 14P

<DIODE>

REF. NO.	PART NO.	DESCRIPTION
D700	8-719-800-76	DIODE 1SS226
D701	8-719-800-76	DIODE 1SS226
D702	8-719-801-78	DIODE 1SS184
D703	8-719-800-76	DIODE 1SS226
D704	8-719-800-76	DIODE 1SS226
D705	8-719-800-76	DIODE 1SS226
D706	8-719-800-76	DIODE 1SS226
D707	8-719-800-76	DIODE 1SS226
D708	8-719-800-76	DIODE 1SS226

<IC>

REF. NO.	PART NO.	DESCRIPTION
IC700	8-759-105-49	IC µPC319G2
IC701	8-749-010-58	IC BX6589
IC702	8-759-168-20	IC TA78L09S
IC703	8-749-010-58	IC BX6589
IC704	8-749-010-58	IC BX6589
IC705	8-759-008-67	IC MC14066BF
IC706	8-759-100-96	IC µPC4558G2

<JACK>

REF. NO.	PART NO.	DESCRIPTION
J221	1-565-269-11	SOCKET, CONNECTOR (D-DUB,L) 9P

<TRANSISTOR>

REF. NO.	PART NO.	DESCRIPTION
Q700	8-729-230-49	TRANSISTOR 2SC2712-YG
Q701	8-729-230-49	TRANSISTOR 2SC2712-YG
Q702	8-729-320-62	TRANSISTOR 2SD789-34
Q703	8-729-901-01	TRANSISTOR DTC144EK
Q704	8-729-230-49	TRANSISTOR 2SC2712-YG
Q705	8-729-112-65	TRANSISTOR 2SA1462-T1Y33
Q706	8-729-901-01	TRANSISTOR DTC144EK
Q707	8-729-901-01	TRANSISTOR DTC144EK
Q708	8-729-901-01	TRANSISTOR DTC144EK
Q709	8-729-901-01	TRANSISTOR DTC144EK

<RESISTOR>

REF. NO.	PART NO.	DESCRIPTION			REMARK
R700	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R701	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R702	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R703	1-216-624-11	METAL CHIP	75	0.50%	1/10W
R704	1-216-009-00	METAL GLAZE	22	5%	1/10W
R705	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R706	1-216-067-00	METAL GLAZE	5.6K	5%	1/10W
R707	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R708	1-216-624-11	METAL CHIP	75	0.50%	1/10W
R709	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W
R710	1-216-009-00	METAL GLAZE	22	5%	1/10W
R711	1-216-017-91	METAL GLAZE	47	5%	1/10W
R712	1-216-624-11	METAL CHIP	75	0.50%	1/10W
R713	1-216-624-11	METAL CHIP	75	0.50%	1/10W
R715	1-216-624-11	METAL CHIP	75	0.50%	1/10W
R716	1-216-624-11	METAL CHIP	75	0.50%	1/10W
R718	1-216-624-11	METAL CHIP	75	0.50%	1/10W
R719	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R720	1-216-624-11	METAL CHIP	75	0.50%	1/10W
R722	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R723	1-216-085-00	METAL GLAZE	33K	5%	1/10W
R724	1-216-109-00	METAL GLAZE	330K	5%	1/10W
R725	1-216-019-00	METAL GLAZE	56	5%	1/10W
R726	1-216-109-00	METAL GLAZE	330K	5%	1/10W
R727	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R728	1-216-119-00	METAL GLAZE	820K	5%	1/10W
R729	1-216-119-00	METAL GLAZE	820K	5%	1/10W
R730	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W
R731	1-216-109-00	METAL GLAZE	330K	5%	1/10W

REF. NO.	PART NO.	DESCRIPTION			REMARK
R732	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R733	1-216-119-00	METAL GLAZE	820K	5%	1/10W
R734	1-216-119-00	METAL GLAZE	820K	5%	1/10W
R735	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R736	1-216-009-00	METAL GLAZE	22	5%	1/10W
R737	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R738	1-216-009-00	METAL GLAZE	22	5%	1/10W
R739	1-216-073-00	METAL GLAZE	10K	5%	1/10W

<RELAY>

REF. NO.	PART NO.	DESCRIPTION
RY700	1-515-796-11	RELAY
RY701	1-515-796-11	RELAY
RY702	1-515-796-11	RELAY

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*A-1311-359-A G BOARD, COMPLETE
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*4-034-120-01 HOLDER (A)
4-382-854-11 SCREW (M3X10), P, SW (+)

<CAPACITOR>

REF. NO.	PART NO.	DESCRIPTION			
C101	1-136-165-00	FILM	0.1μF	5%	50V
C102	1-124-903-11	ELECT	1μF	20%	50V
C103	1-126-972-11	ELECT	1000μF	20%	50V
C104	1-136-165-00	FILM	0.1μF	5%	50V
C105	1-124-903-11	ELECT	1μF	20%	50V
C106	1-126-972-11	ELECT	1000μF	20%	50V
C107	1-136-165-00	FILM	0.1μF	5%	50V
C108	1-124-903-11	ELECT	1μF	20%	50V
C109	1-126-972-11	ELECT	1000μF	20%	50V
C110	1-124-907-11	ELECT	10μF	20%	50V
C111	1-124-907-11	ELECT	10μF	20%	50V
C112	1-124-907-11	ELECT	10μF	20%	50V

<CONNECTOR>

REF. NO.	PART NO.	DESCRIPTION
CN191	*1-766-175-11	PIN, CONNECTOR (PC BOARD) 5P
CN192	*1-766-177-11	PIN, CONNECTOR (PC BOARD) 9P
CN193	*1-766-176-11	PIN, CONNECTOR (PC BOARD) 6P
CN194	*1-564-514-11	PLUG, CONNECTOR 11P
CN195	*1-564-513-11	PLUG, CONNECTOR 10P
CN196	*1-564-505-11	PLUG, CONNECTOR 2P
CN199	*1-564-513-11	PLUG, CONNECTOR 10P
CN200	*1-564-509-11	PLUG, CONNECTOR 6P
CN201	*1-564-506-11	PLUG, CONNECTOR 3P

<DIODE>

REF. NO.	PART NO.	DESCRIPTION
D101	8-719-109-85	DIODE RD5.1ESB2
D102	8-719-109-85	DIODE RD5.1ESB2
D103	8-719-109-85	DIODE RD5.1ESB2
D104	8-719-911-19	DIODE 1SS119-25

<TRANSISTOR>

REF. NO.	PART NO.	DESCRIPTION
Q101	8-729-142-74	TRANSISTOR 2SD1977
Q102	8-729-207-82	TRANSISTOR 2SC3421-Y
Q103	8-729-142-70	TRANSISTOR 2SB1315
Q104	8-729-207-89	TRANSISTOR 2SA1358-Y
Q105	8-729-142-74	TRANSISTOR 2SD1977
Q106	8-729-207-82	TRANSISTOR 2SC3421-Y
Q107	8-729-207-89	TRANSISTOR 2SA1358-Y
Q108	8-729-900-89	TRANSISTOR DTC144ES
Q109	8-729-207-82	TRANSISTOR 2SC3421-Y
Q110	8-729-207-89	TRANSISTOR 2SA1358-Y
Q111	8-729-900-89	TRANSISTOR DTC144ES
Q112	8-729-207-82	TRANSISTOR 2SC3421-Y

<RESISTOR>

REF. NO.	PART NO.	DESCRIPTION				REMARK
R101	1-216-435-11	METAL OXIDE	2.7K	5%	1W	F
R102	1-249-417-11	CARBON	1K	5%	1/4W	
R103	1-215-869-11	METAL OXIDE	1K	5%	1W	F
R104	1-249-428-11	CARBON	8.2K	5%	1/4W	
R105	1-249-441-11	CARBON	100K	5%	1/4W	
R106	1-249-427-11	CARBON	6.8K	5%	1/4W	
R107	1-249-427-11	CARBON	6.8K	5%	1/4W	
R108	1-249-441-11	CARBON	100K	5%	1/4W	
R109	1-249-441-11	CARBON	100K	5%	1/4W	
R110	1-216-435-11	METAL OXIDE	2.7K	5%	1W	F
R111	1-249-417-11	CARBON	1K	5%	1/4W	
R112	1-215-869-11	METAL OXIDE	1K	5%	1W	F
R113	1-249-428-11	CARBON	8.2K	5%	1/4W	
R114	1-249-427-11	CARBON	6.8K	5%	1/4W	
R115	1-249-427-11	CARBON	6.8K	5%	1/4W	
R116	1-249-441-11	CARBON	100K	5%	1/4W	
R117	1-249-441-11	CARBON	100K	5%	1/4W	
R118	1-249-441-11	CARBON	100K	5%	1/4W	
R119	1-249-414-11	CARBON	560	5%	1/4W	
R120	1-249-417-11	CARBON	1K	5%	1/4W	
R121	1-247-744-11	CARBON	270	5%	1/2W	
R122	1-249-427-11	CARBON	6.8K	5%	1/4W	
R123	1-249-430-11	CARBON	12K	5%	1/4W	
R124	1-249-422-11	CARBON	2.7K	5%	1/4W	
R125	1-249-422-11	CARBON	2.7K	5%	1/4W	
R126	1-249-430-11	CARBON	12K	5%	1/4W	
R127	1-216-345-11	METAL OXIDE	0.47	5%	1W	F
R128	1-247-807-31	CARBON	100	5%	1/4W	
R129	1-249-429-11	CARBON	10K	5%	1/4W	
R130	1-249-429-11	CARBON	10K	5%	1/4W	
R131	1-247-807-31	CARBON	100	5%	1/4W	
R132	1-216-345-11	METAL OXIDE	0.47	5%	1W	F
R133	1-216-341-11	METAL OXIDE	0.22	5%	1W	F
R134	1-247-807-31	CARBON	100	5%	1/4W	
R135	1-249-429-11	CARBON	10K	5%	1/4W	
R136	1-249-429-11	CARBON	10K	5%	1/4W	
R137	1-249-429-11	CARBON	10K	5%	1/4W	
R138	1-249-429-11	CARBON	10K	5%	1/4W	

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*A-1331-307-A CM BOARD, COMPLETE
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<CAPACITOR>

REF. NO.	PART NO.	DESCRIPTION		
C51	1-101-821-00	CERAMIC	0.0022μF	500V
C52	1-101-821-00	CERAMIC	0.0022μF	500V
C53	1-101-821-00	CERAMIC	0.0022μF	500V
C54	1-101-821-00	CERAMIC	0.0022μF	500V
C56	1-101-821-00	CERAMIC	0.0022μF	500V
C57	1-101-821-00	CERAMIC	0.0022μF	500V
C58	1-101-821-00	CERAMIC	0.0022μF	500V
C59	1-101-821-00	CERAMIC	0.0022μF	500V

<CONNECTOR>

REF. NO.	PART NO.	DESCRIPTION
CN51	*1-766-308-11	SOCKET, PC CONNECTOR 64P
CN52	*1-766-306-11	SOCKET, PC CONNECTOR 64P
CN53	*1-766-306-11	SOCKET, PC CONNECTOR 64P
CN54	1-564-505-11	PLUG, CONNECTOR 2P
CN55	*1-564-505-11	PLUG, CONNECTOR 2P

REF. NO.	PART NO.	DESCRIPTION	REMARK
CN56	*1-564-506-11	PLUG, CONNECTOR 3P	
CN57	1-564-505-11	PLUG, CONNECTOR 2P	
CN58	*1-564-507-11	PLUG, CONNECTOR 4P	

<FILTER>

REF. NO.	PART NO.	DESCRIPTION	REMARK
FL51	1-236-071-11	ENCAPSULATED COMPONENT	
FL52	1-236-071-11	ENCAPSULATED COMPONENT	
FL53	1-236-071-11	ENCAPSULATED COMPONENT	
FL54	1-236-071-11	ENCAPSULATED COMPONENT	
FL56	1-236-071-11	ENCAPSULATED COMPONENT	
FL57	1-236-071-11	ENCAPSULATED COMPONENT	
FL58	1-236-071-11	ENCAPSULATED COMPONENT	
FL59	1-236-071-11	ENCAPSULATED COMPONENT	

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*A-1335-052-A CAC BOARD, COMPLETE
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4-382-854-11 SCREW (M3X10), P, SW (+)

<CAPACITOR>

REF. NO.	PART NO.	DESCRIPTION	REMARK
C401	1-126-134-11	ELECT 4.7μF 20% 350V	
C402	1-126-134-11	ELECT 4.7μF 20% 350V	
C403	1-124-903-11	ELECT 1μF 20% 50V	
C404	1-101-004-00	CERAMIC 0.01μF 50V	
C405	1-126-772-11	ELECT 1μF 20% 160V	
C406	1-124-903-11	ELECT 1μF 20% 50V	
C407	1-126-772-11	ELECT 1μF 20% 160V	
C408	1-126-965-11	ELECT 22μF 20% 50V	
C409	1-124-907-11	ELECT 10μF 20% 50V	
C410	1-104-665-11	ELECT 100μF 20% 16V	
C411	1-124-907-11	ELECT 10μF 20% 50V	
C412	1-104-665-11	ELECT 100μF 20% 16V	
C413	1-126-772-11	ELECT 1μF 20% 160V	
C414	1-123-932-00	ELECT 4.7μF 20% 160V	
C415	1-126-965-11	ELECT 22μF 20% 50V	
C416	1-124-907-11	ELECT 10μF 20% 50V	
C417	1-104-665-11	ELECT 100μF 20% 16V	
C418	1-101-004-00	CERAMIC 0.01μF 50V	
C419	1-101-004-00	CERAMIC 0.01μF 50V	
C420	1-124-907-11	ELECT 10μF 20% 50V	
C421	1-124-903-11	ELECT 1μF 20% 50V	
C422	1-101-004-00	CERAMIC 0.01μF 50V	
C423	1-126-772-11	ELECT 1μF 20% 160V	
C424	1-162-117-00	CERAMIC 100pF 10% 500V	
C425	1-101-004-00	CERAMIC 0.01μF 50V	
C426	1-101-004-00	CERAMIC 0.01μF 50V	
C427	1-136-165-00	FILM 0.1μF 5% 50V	
C428	1-136-165-00	FILM 0.1μF 5% 50V	
C429	1-101-004-00	CERAMIC 0.01μF 50V	
C430	1-136-165-00	FILM 0.1μF 5% 50V	
C431	1-136-165-00	FILM 0.1μF 5% 50V	
C432	1-124-903-11	ELECT 1μF 20% 50V	
C433	1-124-907-11	ELECT 10μF 20% 50V	
C434	1-101-004-00	CERAMIC 0.01μF 50V	
C435	1-101-004-00	CERAMIC 0.01μF 50V	
C436	1-124-907-11	ELECT 10μF 20% 50V	
C437	1-101-004-00	CERAMIC 0.01μF 50V	
C438	1-101-004-00	CERAMIC 0.01μF 50V	
C439	1-101-004-00	CERAMIC 0.01μF 50V	
C440	1-101-004-00	CERAMIC 0.01μF 50V	
C441	1-126-941-11	ELECT 470μF 20% 16V	
C442	1-102-820-00	CERAMIC 330pF 5% 50V	
C443	1-101-880-00	CERAMIC 47pF 5% 50V	
C444	1-136-171-00	FILM 0.33μF 5% 50V	
C445	1-101-004-00	CERAMIC 0.01μF 50V	
C446	1-124-907-11	ELECT 10μF 20% 50V	
C447	1-104-665-11	ELECT 100μF 20% 16V	
C448	1-124-907-11	ELECT 10μF 20% 50V	
C450	1-124-907-11	ELECT 10μF 20% 50V	
	*7-322-065-72	RUBBER, RTV (SE-9168) (130G) ; C450	

<CONNECTOR>

REF. NO.	PART NO.	DESCRIPTION	REMARK
CN161	*1-766-304-11	PIN, PC CONNECTOR 64P	

<DIODE>

REF. NO.	PART NO.	DESCRIPTION	REMARK
D401	8-719-900-95	DIODE V09G	
D402	8-719-900-95	DIODE V09G	
D403	8-719-911-19	DIODE 1SS119-25	
D404	8-719-900-95	DIODE V09G	
D405	8-719-900-95	DIODE V09G	
D406	8-719-900-95	DIODE V09G	
D407	8-719-109-85	DIODE RD5.1ESB2	
D408	8-719-911-19	DIODE 1SS119-25	
D409	8-719-109-66	DIODE RD3.3ESB2	
D410	8-719-109-97	DIODE RD6.8ESB2	
D411	8-719-901-83	DIODE 1SS83	
D412	8-719-901-83	DIODE 1SS83	
D413	8-719-110-31	DIODE RD12ESB2	
D414	8-719-110-31	DIODE RD12ESB2	
D415	8-719-911-19	DIODE 1SS119-25	
D416	8-719-911-19	DIODE 1SS119-25	
D417	8-719-911-19	DIODE 1SS119-25	
D418	8-719-109-85	DIODE RD5.1ESB2	
D419	8-719-911-19	DIODE 1SS119-25	
D420	8-719-109-97	DIODE RD6.8ESB2	

<IC>

REF. NO.	PART NO.	DESCRIPTION	REMARK
IC401	8-759-701-88	IC NJM7912FA	
IC402	8-759-231-58	IC TA7812S	
IC403	8-759-708-05	IC NJM78L05A	
IC404	8-759-503-91	IC TL082ACP	
IC405	8-759-038-14	IC MC74HC4538AN	
IC406	8-759-984-55	IC MB675429	
IC407	8-759-916-71	IC SN74HC244AN	
IC408	8-759-916-12	IC SN74HC00AN	

<COIL>

REF. NO.	PART NO.	DESCRIPTION	REMARK
L401	1-459-155-00	COIL (WITH CORE) 45μH	
L402	1-459-155-00	COIL (WITH CORE) 45μH	
L403	1-459-155-00	COIL (WITH CORE) 45μH	
L404	1-459-155-00	COIL (WITH CORE) 45μH	
L405	1-459-155-00	COIL (WITH CORE) 45μH	

<TRANSISTOR>

REF. NO.	PART NO.	DESCRIPTION	REMARK
Q401	8-729-903-68	TRANSISTOR 2SD982	
Q402	8-729-801-88	TRANSISTOR 2SA1381-E	
Q403	8-729-900-89	TRANSISTOR DTC144ES	
Q404	8-729-903-68	TRANSISTOR 2SD982	
Q405	8-729-140-96	TRANSISTOR 2SD774-34	
Q406	8-729-801-88	TRANSISTOR 2SA1381-E	
Q407	8-729-900-89	TRANSISTOR DTC144ES	
Q408	8-729-900-89	TRANSISTOR DTC144ES	
Q409	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q410	8-729-820-82	TRANSISTOR 2SA1208-S	
Q411	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q412	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q413	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q414	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q415	8-729-820-82	TRANSISTOR 2SA1208-S	

CAC **CAR**

REF. NO.	PART NO.	DESCRIPTION				REMARK
Q416	8-729-255-12	TRANSISTOR 2SC2551-O				
Q417	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q418	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q420	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q421	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q422	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q423	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q424	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q425	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q426	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q427	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q428	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q429	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q430	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q431	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q432	8-729-119-76	TRANSISTOR 2SA1175-HFE				
		<RESISTOR>				
R401	1-249-476-11	CARBON	1.5	5%	1/2W	F
R402	1-247-863-91	CARBON	22K	5%	1/4W	
R403	1-249-429-11	CARBON	10K	5%	1/4W	F
R404	1-249-425-11	CARBON	4.7K	5%	1/4W	
R405	1-249-423-11	CARBON	3.3K	5%	1/4W	
R406	1-247-903-00	CARBON	1M	5%	1/4W	
R407	1-247-807-31	CARBON	100	5%	1/4W	
R408	1-215-437-00	METAL	4.7K	1%	1/4W	
R409	1-215-449-00	METAL	15K	1%	1/4W	
R410	1-202-719-00	SOLID	1M	20%	1/2W	
R411	1-249-397-11	CARBON	22	5%	1/4W	F
R412	1-249-437-11	CARBON	47K	5%	1/4W	
R413	1-249-441-11	CARBON	100K	5%	1/4W	
R414	1-249-435-11	CARBON	33K	5%	1/4W	
R415	1-249-437-11	CARBON	47K	5%	1/4W	
R416	1-247-807-31	CARBON	100	5%	1/4W	
R417	1-215-413-00	METAL	470	1%	1/4W	
R418	1-215-455-00	METAL	27K	1%	1/4W	
R419	1-249-427-11	CARBON	6.8K	5%	1/4W	
R420	1-249-429-11	CARBON	10K	5%	1/4W	
R421	1-215-439-00	METAL	5.6K	1%	1/4W	
R422	1-215-443-00	METAL	8.2K	1%	1/4W	
R423	1-249-429-11	CARBON	10K	5%	1/4W	F
R424	1-247-903-00	CARBON	1M	5%	1/4W	
R425	1-249-421-11	CARBON	2.2K	5%	1/4W	
R426	1-249-441-11	CARBON	100K	5%	1/4W	
R427	1-249-393-11	CARBON	10	5%	1/4W	
R428	1-249-424-11	CARBON	3.9K	5%	1/4W	
R429	1-249-424-11	CARBON	3.9K	5%	1/4W	
R430	1-215-437-00	METAL	4.7K	1%	1/4W	
R431	1-249-405-11	CARBON	100	5%	1/4W	F
R432	1-249-438-11	CARBON	56K	5%	1/4W	
R433	1-249-401-11	CARBON	47	5%	1/4W	
R434	1-247-807-31	CARBON	100	5%	1/4W	
R435	1-249-437-11	CARBON	47K	5%	1/4W	
R436	1-247-807-31	CARBON	100	5%	1/4W	
R437	1-247-791-91	CARBON	22	5%	1/4W	
R438	1-249-425-11	CARBON	4.7K	5%	1/4W	
R439	1-249-423-11	CARBON	3.3K	5%	1/4W	
R440	1-247-807-31	CARBON	100	5%	1/4W	
R441	1-249-437-11	CARBON	47K	5%	1/4W	
R442	1-249-425-11	CARBON	4.7K	5%	1/4W	
R443	1-247-807-31	CARBON	100	5%	1/4W	
R444	1-247-807-31	CARBON	100	5%	1/4W	
R445	1-249-423-11	CARBON	3.3K	5%	1/4W	
R446	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R447	1-249-397-11	CARBON	22	5%	1/4W	F
R448	1-215-443-00	METAL	8.2K	1%	1/4W	
R449	1-247-887-00	CARBON	220K	5%	1/4W	
R450	1-215-443-00	METAL	8.2K	1%	1/4W	
R451	1-247-887-00	CARBON	220K	5%	1/4W	
R452	1-215-443-00	METAL	8.2K	1%	1/4W	
R453	1-215-431-00	METAL	2.7K	1%	1/4W	
R454	1-215-443-00	METAL	8.2K	1%	1/4W	
R455	1-247-887-00	CARBON	220K	5%	1/4W	
R456	1-215-447-00	METAL	12K	1%	1/4W	
R457	1-249-429-11	CARBON	10K	5%	1/4W	
R458	1-247-807-31	CARBON	100	5%	1/4W	
R459	1-215-465-00	METAL	68K	1%	1/4W	
R460	1-215-453-00	METAL	22K	1%	1/4W	
R461	1-247-863-91	CARBON	22K	5%	1/4W	
R462	1-215-457-00	METAL	33K	1%	1/4W	
R463	1-215-469-00	METAL	100K	1%	1/4W	
R464	1-249-429-11	CARBON	10K	5%	1/4W	
R465	1-247-807-31	CARBON	100	5%	1/4W	
R466	1-249-441-11	CARBON	100K	5%	1/4W	
R467	1-247-887-00	CARBON	220K	5%	1/4W	
R468	1-215-469-00	METAL	100K	1%	1/4W	
R469	1-247-807-31	CARBON	100	5%	1/4W	
R470	1-247-807-31	CARBON	100	5%	1/4W	
R471	1-249-423-11	CARBON	3.3K	5%	1/4W	
R472	1-247-807-31	CARBON	100	5%	1/4W	
R473	1-215-449-00	METAL	15K	1%	1/4W	
R474	1-247-807-31	CARBON	100	5%	1/4W	
R475	1-215-447-00	METAL	12K	1%	1/4W	
R476	1-249-426-11	CARBON	5.6K	5%	1/4W	
R477	1-247-863-91	CARBON	22K	5%	1/4W	
R478	1-247-807-31	CARBON	100	5%	1/4W	
R479	1-247-807-31	CARBON	100	5%	1/4W	
R480	1-247-807-31	CARBON	100	5%	1/4W	
R481	1-247-807-31	CARBON	100	5%	1/4W	
R482	1-247-807-31	CARBON	100	5%	1/4W	
R483	1-249-429-11	CARBON	10K	5%	1/4W	
R484	1-247-807-31	CARBON	100	5%	1/4W	
R485	1-247-807-31	CARBON	100	5%	1/4W	
R486	1-249-439-11	CARBON	68K	5%	1/4W	
R487	1-249-413-11	CARBON	470	5%	1/4W	
R488	1-247-807-31	CARBON	100	5%	1/4W	
R489	1-249-429-11	CARBON	10K	5%	1/4W	

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* A-1335-053-A CAR BOARD, COMPLETE
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7-682-548-04 SCREW, TERMINAL (M3X8)
7-682-652-09 SCREW +PS 3X16

<CAPACITOR>

C101	1-107-715-11	ELECT	22μF	20%	16V
C102	1-104-665-11	ELECT	100μF	20%	16V
C103	1-101-004-00	CERAMIC	0.01μF	50V	
C104	1-102-038-00	CERAMIC	0.001μF	500V	
C105	1-126-174-51	ELECT	10μF	20%	350V
C106	1-101-004-00	CERAMIC	0.01μF	50V	
C107	1-104-665-11	ELECT	100μF	20%	16V
C108	1-124-910-11	ELECT	47μF	20%	50V
C109	1-126-965-11	ELECT	22μF	20%	50V
C110	1-102-050-00	CERAMIC	0.01μF		500V
C111	1-104-665-11	ELECT	100μF	20%	16V
C112	1-102-973-00	CERAMIC	100pF	5%	50V
C113	1-102-978-00	CERAMIC	220pF	5%	50V
C114	1-136-165-00	FILM	0.1μF	5%	50V
C115	1-104-665-11	ELECT	100μF	20%	16V
C116	1-126-772-11	ELECT	1μF	20%	160V
C118	1-102-050-00	CERAMIC	0.01μF		500V

REF. NO.	PART NO.	DESCRIPTION			REMARK
C119	1-136-165-00	FILM	0.1µF	5%	50V
C120	1-124-907-11	ELECT	10µF	20%	50V
C122	1-101-004-00	CERAMIC	0.01µF	50V	
C123	1-126-965-11	ELECT	22µF	20%	50V
C124	1-124-907-11	ELECT	10µF	20%	50V
C125	1-101-004-00	CERAMIC	0.01µF	50V	
C126	1-126-965-11	ELECT	22µF	20%	50V
C127	1-126-942-61	ELECT	1000µF	20%	16V
C128	1-101-004-00	CERAMIC	0.01µF	50V	
C129	1-107-721-11	ELECT	4.7µF	20%	50V
C130	1-124-907-11	ELECT	10µF	20%	50V
C131	1-124-907-11	ELECT	10µF	20%	50V
C132	1-101-004-00	CERAMIC	0.01µF	50V	
C133	1-136-165-00	FILM	0.1µF	5%	50V
C134	1-124-903-11	ELECT	1µF	20%	50V
C135	1-124-903-11	ELECT	1µF	20%	50V

<CONNECTOR>

REF. NO.	PART NO.	DESCRIPTION
CN131	*1-766-304-11	PIN, PC CONNECTOR 64P
CN133	*1-564-507-11	PLUG, CONNECTOR 4P
CN134	*1-564-507-11	PLUG, CONNECTOR 4P
CN135	*1-564-507-11	PLUG, CONNECTOR 4P

<DIODE>

REF. NO.	PART NO.	DESCRIPTION
D101	8-719-911-19	DIODE 1SS119-25
D102	8-719-901-83	DIODE 1SS83
D103	8-719-901-83	DIODE 1SS83
D104	8-719-911-19	DIODE 1SS119-25
D105	8-719-911-19	DIODE 1SS119-25
D106	8-719-911-19	DIODE 1SS119-25
D107	8-719-911-19	DIODE 1SS119-25
D108	8-719-911-19	DIODE 1SS119-25
D110	8-719-911-19	DIODE 1SS119-25
D111	8-719-109-51	DIODE RD2.0ESB2
D112	8-719-911-19	DIODE 1SS119-25
D113	8-719-110-36	DIODE RD13ESB2
D115	8-719-911-19	DIODE 1SS119-25
D116	8-719-911-19	DIODE 1SS119-25
D117	8-719-911-19	DIODE 1SS119-25
D118	8-719-911-19	DIODE 1SS119-25

<IC>

REF. NO.	PART NO.	DESCRIPTION
IC101	8-749-923-15	IC TY885002A
IC103	8-749-924-19	IC VPH05B
IC104	8-759-503-91	IC TL082ACP

<JACK>

REF. NO.	PART NO.	DESCRIPTION
J101	*1-526-575-00	SOCKET, PLUG 1P

<COIL>

REF. NO.	PART NO.	DESCRIPTION
L101	1-408-879-21	INDUCTOR 0.47µH

<TRANSISTOR>

REF. NO.	PART NO.	DESCRIPTION
Q101	8-729-801-88	TRANSISTOR 2SA1381-E
Q102	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q103	8-729-801-88	TRANSISTOR 2SA1381-E
Q104	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q105	8-729-801-88	TRANSISTOR 2SA1381-E
Q107	8-729-140-96	TRANSISTOR 2SD774-34
Q109	8-729-801-88	TRANSISTOR 2SA1381-E
Q110	8-729-140-96	TRANSISTOR 2SD774-34
Q111	8-729-119-76	TRANSISTOR 2SA1175-HFE
Q112	8-729-900-65	TRANSISTOR DTA144ES
Q113	8-729-900-65	TRANSISTOR DTA144ES
Q114	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q115	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q116	8-729-105-74	TRANSISTOR 2SK523-M1
Q117	8-729-900-89	TRANSISTOR DTC144ES
Q118	8-729-119-78	TRANSISTOR 2SC2785-HFE

<RESISTOR>

REF. NO.	PART NO.	DESCRIPTION			REMARK	
R101	1-215-401-11	METAL	150	1%	1/4W	
R102	1-215-401-11	METAL	150	1%	1/4W	
R104	1-249-403-11	CARBON	68	5%	1/4W	F
R105	1-249-410-11	CARBON	270	5%	1/4W	F
R106	1-249-421-11	CARBON	2.2K	5%	1/4W	
R107	1-215-383-00	METAL	27	1%	1/4W	
R109	1-249-421-11	CARBON	2.2K	5%	1/4W	
R111	1-249-413-11	CARBON	470	5%	1/4W	F
R113	1-215-469-00	METAL	100K	1%	1/4W	
R114	1-215-429-00	METAL	2.2K	1%	1/4W	
R115	1-215-457-00	METAL	33K	1%	1/4W	
R117	1-215-469-00	METAL	100K	1%	1/4W	
R120	1-215-469-00	METAL	100K	1%	1/4W	
R121	1-215-433-00	METAL	3.3K	1%	1/4W	
R122	1-215-433-00	METAL	3.3K	1%	1/4W	
R123	1-215-461-00	METAL	47K	1%	1/4W	
R125	1-249-423-11	CARBON	3.3K	5%	1/4W	
R126	1-215-447-00	METAL	12K	1%	1/4W	
R127	1-249-421-11	CARBON	2.2K	5%	1/4W	
R128	1-215-445-00	METAL	10K	1%	1/4W	
R129	1-247-807-31	CARBON	100	5%	1/4W	
R130	1-215-451-00	METAL	18K	1%	1/4W	
R131	1-249-393-11	CARBON	10	5%	1/4W	
R132	1-247-807-31	CARBON	100	5%	1/4W	
R133	1-249-427-11	CARBON	6.8K	5%	1/4W	
R134	1-247-807-31	CARBON	100	5%	1/4W	
R135	1-247-807-31	CARBON	100	5%	1/4W	
R136	1-247-863-91	CARBON	22K	5%	1/4W	
R137	1-247-863-91	CARBON	22K	5%	1/4W	
R138	1-249-425-11	CARBON	4.7K	5%	1/4W	
R139	1-249-429-11	CARBON	10K	5%	1/4W	
R140	1-249-417-11	CARBON	1K	5%	1/4W	
R141	1-216-449-11	METAL OXIDE	56	5%	2W	F
R142	1-215-433-00	METAL	3.3K	1%	1/4W	
R143	1-215-441-00	METAL	6.8K	1%	1/4W	
R144	1-202-549-00	SOLID	100	10%	1/2W	
R145	1-202-549-00	SOLID	100	10%	1/2W	
R146	1-215-481-00	METAL	330K	1%	1/4W	
R147	1-247-807-31	CARBON	100	5%	1/4W	
R148	1-247-807-31	CARBON	100	5%	1/4W	
R149	1-249-431-11	CARBON	15K	5%	1/4W	
R150	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R151	1-249-414-11	CARBON	560	5%	1/4W	F
R152	1-249-431-11	CARBON	15K	5%	1/4W	
R153	1-215-469-00	METAL	100K	1%	1/4W	
R154	1-249-429-11	CARBON	10K	5%	1/4W	
R155	1-214-777-00	METAL	100K	1%	1/4W	
R156	1-247-807-31	CARBON	100	5%	1/4W	
R157	1-249-415-11	CARBON	680	5%	1/4W	
R158	1-215-431-00	METAL	2.7K	1%	1/4W	
R159	1-215-453-00	METAL	22K	1%	1/4W	
R160	1-215-421-00	METAL	1K	1%	1/4W	
R161	1-249-417-11	CARBON	1K	5%	1/4W	
R162	1-249-421-11	CARBON	2.2K	5%	1/4W	
R163	1-247-903-00	CARBON	1M	5%	1/4W	
R164	1-247-807-31	CARBON	100	5%	1/4W	
R165	1-247-807-31	CARBON	100	5%	1/4W	
R166	1-247-807-31	CARBON	100	5%	1/4W	
R167	1-247-807-31	CARBON	100	5%	1/4W	

CAR **CAG**

REF. NO.	PART NO.	DESCRIPTION				REMARK
R168	1-247-807-31	CARBON	100	5%	1/4W	
R169	1-247-807-31	CARBON	100	5%	1/4W	
R170	1-247-807-31	CARBON	100	5%	1/4W	
R171	1-247-807-31	CARBON	100	5%	1/4W	
R172	1-247-807-31	CARBON	100	5%	1/4W	
R173	1-247-807-31	CARBON	100	5%	1/4W	
R174	1-247-807-31	CARBON	100	5%	1/4W	
R175	1-247-807-31	CARBON	100	5%	1/4W	
R176	1-247-807-31	CARBON	100	5%	1/4W	
R177	1-249-381-11	CARBON	1	5%	1/4W	F
R178	1-249-397-11	CARBON	22	5%	1/4W	F

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*A-1335-054-A CAG BOARD, COMPLETE
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7-682-548-04 SCREW, TERMINAL (M3X8)
7-682-652-09 SCREW +PS 3X16

<CAPACITOR>

C201	1-107-715-11	ELECT	22μF	20%	16V
C202	1-104-665-11	ELECT	100μF	20%	16V
C203	1-101-004-00	CERAMIC	0.01μF	50V	
C204	1-102-038-00	CERAMIC	0.001μF	500V	
C205	1-126-174-51	ELECT	10μF	20%	350V
C206	1-101-004-00	CERAMIC	0.01μF	50V	
C207	1-104-665-11	ELECT	100μF	20%	16V
C208	1-124-910-11	ELECT	47μF	20%	50V
C209	1-126-965-11	ELECT	22μF	20%	50V
C210	1-102-050-00	CERAMIC	0.01μF		500V
C211	1-104-665-11	ELECT	100μF	20%	16V
C212	1-102-973-00	CERAMIC	100pF	5%	50V
C213	1-102-978-00	CERAMIC	220pF	5%	50V
C214	1-136-165-00	FILM	0.1μF	5%	50V
C215	1-104-665-11	ELECT	100μF	20%	16V
C216	1-126-772-11	ELECT	1μF	20%	160V
C218	1-102-050-00	CERAMIC	0.01μF		500V
C219	1-136-165-00	FILM	0.1μF	5%	50V
C220	1-124-907-11	ELECT	10μF	20%	50V
C222	1-101-004-00	CERAMIC	0.01μF	50V	
C223	1-126-965-11	ELECT	22μF	20%	50V
C224	1-124-907-11	ELECT	10μF	20%	50V
C225	1-101-004-00	CERAMIC	0.01μF	50V	
C226	1-126-965-11	ELECT	22μF	20%	50V
C227	1-126-942-61	ELECT	1000μF	20%	16V
C228	1-101-004-00	CERAMIC	0.01μF	50V	
C229	1-107-721-11	ELECT	4.7μF	20%	50V
C230	1-124-907-11	ELECT	10μF	20%	50V
C231	1-124-907-11	ELECT	10μF	20%	50V
C232	1-101-004-00	CERAMIC	0.01μF	50V	
C233	1-136-165-00	FILM	0.1μF	5%	50V
C234	1-124-903-11	ELECT	1μF	20%	50V
C235	1-124-903-11	ELECT	1μF	20%	50V

<CONNECTOR>

CN141	*1-766-304-11	PIN, PC CONNECTOR 64P
CN143	*1-564-507-11	PLUG, CONNECTOR 4P
CN144	*1-564-507-11	PLUG, CONNECTOR 4P
CN145	*1-564-507-11	PLUG, CONNECTOR 4P

<DIODE>

D201	8-719-911-19	DIODE 1SS119-25
D202	8-719-901-83	DIODE 1SS83
D203	8-719-901-83	DIODE 1SS83
D204	8-719-911-19	DIODE 1SS119-25

REF. NO.	PART NO.	DESCRIPTION	REMARK
D205	8-719-911-19	DIODE 1SS119-25	
D206	8-719-911-19	DIODE 1SS119-25	
D208	8-719-911-19	DIODE 1SS119-25	
D210	8-719-911-19	DIODE 1SS119-25	
D211	8-719-109-51	DIODE RD2.0ESB2	
D212	8-719-911-19	DIODE 1SS119-25	
D213	8-719-110-36	DIODE RD13ESB2	
D215	8-719-911-19	DIODE 1SS119-25	
D216	8-719-911-19	DIODE 1SS119-25	
D217	8-719-911-19	DIODE 1SS119-25	
D218	8-719-911-19	DIODE 1SS119-25	

<IC>

IC201	8-749-923-15	IC TY885002A
IC203	8-749-924-19	IC VPH05B
IC204	8-759-503-91	IC TL082ACP

<JACK>

J201	*1-526-575-00	SOCKET, PLUG 1P

<COIL>

L201	1-408-879-21	INDUCTOR 0.47μH

<TRANSISTOR>

Q201	8-729-801-88	TRANSISTOR 2SA1381-E
Q202	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q203	8-729-801-88	TRANSISTOR 2SA1381-E
Q205	8-729-801-88	TRANSISTOR 2SA1381-E
Q207	8-729-140-96	TRANSISTOR 2SD774-34
Q209	8-729-801-88	TRANSISTOR 2SA1381-E
Q210	8-729-140-96	TRANSISTOR 2SD774-34
Q211	8-729-119-76	TRANSISTOR 2SA1175-HFE
Q212	8-729-900-65	TRANSISTOR DTA144ES
Q213	8-729-900-65	TRANSISTOR DTA144ES
Q214	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q215	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q216	8-729-105-74	TRANSISTOR 2SK523-M1
Q217	8-729-900-89	TRANSISTOR DTC144ES
Q218	8-729-119-78	TRANSISTOR 2SC2785-HFE

<RESISTOR>

R201	1-215-401-11	METAL	150	1%	1/4W	
R202	1-215-401-11	METAL	150	1%	1/4W	
R204	1-249-403-11	CARBON	68	5%	1/4W	F
R206	1-249-421-11	CARBON	2.2K	5%	1/4W	
R207	1-215-383-00	METAL	27	1%	1/4W	
R209	1-249-421-11	CARBON	2.2K	5%	1/4W	
R211	1-249-410-11	CARBON	270	5%	1/4W	F
R213	1-215-473-00	METAL	150K	1%	1/4W	
R214	1-215-429-00	METAL	2.2K	1%	1/4W	
R217	1-215-469-00	METAL	100K	1%	1/4W	
R220	1-215-469-00	METAL	100K	1%	1/4W	
R221	1-215-433-00	METAL	3.3K	1%	1/4W	
R222	1-215-433-00	METAL	3.3K	1%	1/4W	
R223	1-215-461-00	METAL	47K	1%	1/4W	
R225	1-249-423-11	CARBON	3.3K	5%	1/4W	
R226	1-215-447-00	METAL	12K	1%	1/4W	
R227	1-249-421-11	CARBON	2.2K	5%	1/4W	
R228	1-215-445-00	METAL	10K	1%	1/4W	
R229	1-247-807-31	CARBON	100	5%	1/4W	
R230	1-215-451-00	METAL	18K	1%	1/4W	
R231	1-249-393-11	CARBON	10	5%	1/4W	
R232	1-247-807-31	CARBON	100	5%	1/4W	
R233	1-249-427-11	CARBON	6.8K	5%	1/4W	

REF. NO.	PART NO.	DESCRIPTION			REMARK	
R234	1-247-807-31	CARBON	100	5%	1/4W	
R235	1-247-807-31	CARBON	100	5%	1/4W	
R236	1-247-863-91	CARBON	22K	5%	1/4W	
R237	1-247-863-91	CARBON	22K	5%	1/4W	
R238	1-249-425-11	CARBON	4.7K	5%	1/4W	
R239	1-249-429-11	CARBON	10K	5%	1/4W	
R240	1-249-417-11	CARBON	1K	5%	1/4W	
R241	1-216-449-11	METAL OXIDE	56	5%	2W	F
R242	1-215-433-00	METAL	3.3K	1%	1/4W	
R243	1-215-441-00	METAL	6.8K	1%	1/4W	
R244	1-202-549-00	SOLID	100	10%	1/2W	
R245	1-202-549-00	SOLID	100	10%	1/2W	
R246	1-215-481-00	METAL	330K	1%	1/4W	
R247	1-247-807-31	CARBON	100	5%	1/4W	
R248	1-247-807-31	CARBON	100	5%	1/4W	
R249	1-249-431-11	CARBON	15K	5%	1/4W	
R250	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R251	1-249-414-11	CARBON	560	5%	1/4W	F
R252	1-249-431-11	CARBON	15K	5%	1/4W	
R253	1-215-469-00	METAL	100K	1%	1/4W	
R254	1-249-429-11	CARBON	10K	5%	1/4W	
R255	1-214-777-00	METAL	100K	1%	1/4W	
R256	1-247-807-31	CARBON	100	5%	1/4W	
R257	1-249-415-11	CARBON	680	5%	1/4W	
R258	1-215-431-00	METAL	2.7K	1%	1/4W	
R259	1-215-453-00	METAL	22K	1%	1/4W	
R260	1-215-421-00	METAL	1K	1%	1/4W	
R261	1-249-417-11	CARBON	1K	5%	1/4W	
R262	1-249-421-11	CARBON	2.2K	5%	1/4W	
R263	1-247-903-00	CARBON	1M	5%	1/4W	
R264	1-247-807-31	CARBON	100	5%	1/4W	
R265	1-247-807-31	CARBON	100	5%	1/4W	
R266	1-247-807-31	CARBON	100	5%	1/4W	
R267	1-247-807-31	CARBON	100	5%	1/4W	
R268	1-247-807-31	CARBON	100	5%	1/4W	
R269	1-247-807-31	CARBON	100	5%	1/4W	
R270	1-247-807-31	CARBON	100	5%	1/4W	
R271	1-247-807-31	CARBON	100	5%	1/4W	
R272	1-247-807-31	CARBON	100	5%	1/4W	
R273	1-247-807-31	CARBON	100	5%	1/4W	
R274	1-247-807-31	CARBON	100	5%	1/4W	
R275	1-247-807-31	CARBON	100	5%	1/4W	
R276	1-247-807-31	CARBON	100	5%	1/4W	
R277	1-249-381-11	CARBON	1	5%	1/4W	F
R278	1-249-397-11	CARBON	22	5%	1/4W	F

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* A-1335-055-A CAB BOARD, COMPLETE
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	7-682-548-04	SCREW, TERMINAL (M3X8)
	7-682-652-09	SCREW +PS 3X16

<CAPACITOR>

REF. NO.	PART NO.	DESCRIPTION			REMARK
C301	1-107-715-11	ELECT	22µF	20%	16V
C302	1-104-665-11	ELECT	100µF	20%	16V
C303	1-101-004-00	CERAMIC	0.01µF	50V	
C304	1-102-038-00	CERAMIC	0.001µF	500V	
C305	1-126-174-51	ELECT	10µF	20%	350V
C306	1-101-004-00	CERAMIC	0.01µF	50V	
C307	1-104-665-11	ELECT	100µF	20%	16V
C308	1-124-910-11	ELECT	47µF	20%	50V
C309	1-126-965-11	ELECT	22µF	20%	50V
C310	1-102-050-00	CERAMIC	0.01µF		500V
C311	1-104-665-11	ELECT	100µF	20%	16V
C312	1-102-973-00	CERAMIC	100pF	5%	50V
C313	1-102-978-00	CERAMIC	220pF	5%	50V
C314	1-136-165-00	FILM	0.1µF	5%	50V
C315	1-104-665-11	ELECT	100µF	20%	16V
C316	1-126-772-11	ELECT	1µF	20%	160V
C318	1-102-050-00	CERAMIC	0.01µF		500V
C319	1-136-165-00	FILM	0.1µF	5%	50V
C320	1-124-907-11	ELECT	10µF	20%	50V
C322	1-101-004-00	CERAMIC	0.01µF	50V	
C323	1-126-965-11	ELECT	22µF	20%	50V
C324	1-124-907-11	ELECT	10µF	20%	50V
C325	1-101-004-00	CERAMIC	0.01µF	50V	
C326	1-126-965-11	ELECT	22µF	20%	50V
C327	1-126-942-61	ELECT	1000µF	20%	16V
C328	1-101-004-00	CERAMIC	0.01µF	50V	
C329	1-107-721-11	ELECT	4.7µF	20%	50V
C330	1-124-907-11	ELECT	10µF	20%	50V
C331	1-124-907-11	ELECT	10µF	20%	50V
C332	1-101-004-00	CERAMIC	0.01µF	50V	
C333	1-136-165-00	FILM	0.1µF	5%	50V
C334	1-124-903-11	ELECT	1µF	20%	50V
C335	1-124-903-11	ELECT	1µF	20%	50V

<CONNECTOR>

CN151	*1-766-304-11	PIN, PC CONNECTOR 64P
CN153	*1-564-507-11	PLUG, CONNECTOR 4P
CN154	*1-564-507-11	PLUG, CONNECTOR 4P
CN155	*1-564-507-11	PLUG, CONNECTOR 4P

<DIODE>

D301	8-719-911-19	DIODE 1SS119-25
D302	8-719-901-83	DIODE 1SS83
D303	8-719-901-83	DIODE 1SS83
D304	8-719-911-19	DIODE 1SS119-25
D305	8-719-911-19	DIODE 1SS119-25
D306	8-719-911-19	DIODE 1SS119-25
D308	8-719-911-19	DIODE 1SS119-25
D310	8-719-911-19	DIODE 1SS119-25
D311	8-719-109-51	DIODE RD2.0ESB2
D312	8-719-911-19	DIODE 1SS119-25
D313	8-719-110-36	DIODE RD13ESB2
D314	8-719-109-66	DIODE RD3.3ESB2
D315	8-719-911-19	DIODE 1SS119-25
D316	8-719-911-19	DIODE 1SS119-25
D317	8-719-911-19	DIODE 1SS119-25
D318	8-719-911-19	DIODE 1SS119-25

<IC>

IC301	8-749-923-15	IC TY885002A
IC302	8-749-923-25	IC TY911504
IC303	8-749-924-19	IC VPH05B
IC304	8-759-503-91	IC TL082ACP

<JACK>

J301	*1-526-575-00	SOCKET, PLUG 1P

<COIL>

L301	1-408-879-21	INDUCTOR 0.47µH

<TRANSISTOR>

Q301	8-729-801-88	TRANSISTOR 2SA1381-E
Q302	8-729-119-78	TRANSISTOR 2SC2785-HFE
Q303	8-729-801-88	TRANSISTOR 2SA1381-E

CAB **DM** **DE**

REF. NO.	PART NO.	DESCRIPTION				REMARK
Q305	8-729-801-88	TRANSISTOR 2SA1381-E				
Q307	8-729-140-96	TRANSISTOR 2SD774-34				
Q309	8-729-801-88	TRANSISTOR 2SA1381-E				
Q310	8-729-140-96	TRANSISTOR 2SD774-34				
Q311	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q312	8-729-900-65	TRANSISTOR DTA144ES				
Q313	8-729-900-65	TRANSISTOR DTA144ES				
Q314	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q315	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q316	8-729-105-74	TRANSISTOR 2SK523-M1				
Q317	8-729-900-89	TRANSISTOR DTC144ES				
Q318	8-729-119-78	TRANSISTOR 2SC2785-HFE				

<RESISTOR>

REF. NO.	PART NO.	DESCRIPTION				REMARK
R301	1-215-401-11	METAL	150	1%	1/4W	
R302	1-215-401-11	METAL	150	1%	1/4W	
R303	1-249-403-11	CARBON	68	5%	1/4W	
R304	1-249-403-11	CARBON	68	5%	1/4W	F
R306	1-249-421-11	CARBON	2.2K	5%	1/4W	
R307	1-215-383-00	METAL	27	1%	1/4W	
R308	1-249-421-11	CARBON	2.2K	5%	1/4W	
R309	1-249-421-11	CARBON	2.2K	5%	1/4W	
R310	1-247-807-31	CARBON	100	5%	1/4W	
R311	1-249-407-11	CARBON	150	5%	1/4W	F
R313	1-215-475-00	METAL	180K	1%	1/4W	
R314	1-215-429-00	METAL	2.2K	1%	1/4W	
R316	1-215-457-00	METAL	33K	1%	1/4W	
R317	1-215-469-00	METAL	100K	1%	1/4W	
R319	1-215-447-00	METAL	12K	1%	1/4W	
R320	1-215-469-00	METAL	100K	1%	1/4W	
R321	1-215-433-00	METAL	3.3K	1%	1/4W	
R322	1-215-433-00	METAL	3.3K	1%	1/4W	
R323	1-215-461-00	METAL	47K	1%	1/4W	
R325	1-249-423-11	CARBON	3.3K	5%	1/4W	
R326	1-215-447-00	METAL	12K	1%	1/4W	
R327	1-249-421-11	CARBON	2.2K	5%	1/4W	
R328	1-215-445-00	METAL	10K	1%	1/4W	
R329	1-247-807-31	CARBON	100	5%	1/4W	
R330	1-215-451-00	METAL	18K	1%	1/4W	
R331	1-249-393-11	CARBON	10	5%	1/4W	
R332	1-247-807-31	CARBON	100	5%	1/4W	
R333	1-249-427-11	CARBON	6.8K	5%	1/4W	
R334	1-247-807-31	CARBON	100	5%	1/4W	
R335	1-247-807-31	CARBON	100	5%	1/4W	
R336	1-247-863-91	CARBON	22K	5%	1/4W	
R337	1-247-863-91	CARBON	22K	5%	1/4W	
R338	1-249-425-11	CARBON	4.7K	5%	1/4W	
R339	1-249-429-11	CARBON	10K	5%	1/4W	
R340	1-249-417-11	CARBON	1K	5%	1/4W	
R341	1-216-449-11	METAL OXIDE	56	5%	2W	F
R342	1-215-433-00	METAL	3.3K	1%	1/4W	
R343	1-215-441-00	METAL	6.8K	1%	1/4W	
R344	1-202-549-00	SOLID	100	10%	1/2W	
R345	1-202-549-00	SOLID	100	10%	1/2W	
R346	1-215-481-00	METAL	330K	1%	1/4W	
R347	1-247-807-31	CARBON	100	5%	1/4W	
R348	1-247-807-31	CARBON	100	5%	1/4W	
R349	1-249-431-11	CARBON	15K	5%	1/4W	
R350	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R351	1-249-414-11	CARBON	560	5%	1/4W	F
R352	1-249-431-11	CARBON	15K	5%	1/4W	
R353	1-215-469-00	METAL	100K	1%	1/4W	
R354	1-249-429-11	CARBON	10K	5%	1/4W	
R355	1-214-777-00	METAL	100K	1%	1/4W	
R356	1-247-807-31	CARBON	100	5%	1/4W	
R357	1-249-415-11	CARBON	680	5%	1/4W	
R358	1-215-431-00	METAL	2.7K	1%	1/4W	
R359	1-215-453-00	METAL	22K	1%	1/4W	
R360	1-215-421-00	METAL	1K	1%	1/4W	
R361	1-249-417-11	CARBON	1K	5%	1/4W	
R362	1-249-421-11	CARBON	2.2K	5%	1/4W	
R363	1-247-903-00	CARBON	1M	5%	1/4W	
R364	1-247-807-31	CARBON	100	5%	1/4W	
R365	1-247-807-31	CARBON	100	5%	1/4W	
R366	1-247-807-31	CARBON	100	5%	1/4W	
R367	1-247-807-31	CARBON	100	5%	1/4W	
R368	1-247-807-31	CARBON	100	5%	1/4W	
R369	1-247-807-31	CARBON	100	5%	1/4W	
R370	1-247-807-31	CARBON	100	5%	1/4W	
R371	1-247-807-31	CARBON	100	5%	1/4W	
R372	1-247-807-31	CARBON	100	5%	1/4W	
R373	1-247-807-31	CARBON	100	5%	1/4W	
R374	1-247-807-31	CARBON	100	5%	1/4W	
R375	1-247-807-31	CARBON	100	5%	1/4W	
R376	1-247-807-31	CARBON	100	5%	1/4W	
R378	1-249-397-11	CARBON	22	5%	1/4W	F

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* A-1343-108-A DM BOARD, COMPLETE
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<CAPACITOR>

REF. NO.	PART NO.	DESCRIPTION		
C61	1-101-821-00	CERAMIC	0.0022μF	500V
C62	1-101-821-00	CERAMIC	0.0022μF	500V
C63	1-101-821-00	CERAMIC	0.0022μF	500V
C64	1-101-821-00	CERAMIC	0.0022μF	500V
C65	1-101-821-00	CERAMIC	0.0022μF	500V

<CONNECTOR>

REF. NO.	PART NO.	DESCRIPTION
CN61	*1-766-309-11	SOCKET, PC CONNECTOR 96P
CN62	*1-766-307-11	SOCKET, PC CONNECTOR 96P
CN63	*1-766-307-11	SOCKET, PC CONNECTOR 96P
CN64	*1-766-306-11	SOCKET, PC CONNECTOR 64P
CN65	*1-766-306-11	SOCKET, PC CONNECTOR 64P
CN66	*1-766-304-11	PIN, PC CONNECTOR 64P
CN68	*1-564-513-11	PLUG, CONNECTOR 10P
CN70	*1-564-509-11	PLUG, CONNECTOR 6P
CN71	*1-564-515-11	PLUG, CONNECTOR 12P
CN72	*1-564-509-11	PLUG, CONNECTOR 6P
CN73	1-564-505-11	PLUG, CONNECTOR 2P
CN74	*1-564-509-11	PLUG, CONNECTOR 6P

<FILTER>

REF. NO.	PART NO.	DESCRIPTION
FL61	1-236-071-11	ENCAPSULATED COMPONENT
FL62	1-236-071-11	ENCAPSULATED COMPONENT
FL63	1-236-071-11	ENCAPSULATED COMPONENT
FL64	1-236-071-11	ENCAPSULATED COMPONENT
FL65	1-236-071-11	ENCAPSULATED COMPONENT

<RESISTOR>

REF. NO.	PART NO.	DESCRIPTION				REMARK
R60	1-216-483-11	METAL OXIDE	2.7K	5%	3W	F
R61	1-216-483-11	METAL OXIDE	2.7K	5%	3W	F

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* A-1343-131-A DE BOARD, COMPLETE
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<CAPACITOR>

REF. NO.	PART NO.	DESCRIPTION	REMARK
C403	1-163-031-11	CERAMIC CHIP 0.01μF 50V	
C404	1-163-031-11	CERAMIC CHIP 0.01μF 50V	
C405	1-163-031-11	CERAMIC CHIP 0.01μF 50V	
C406	1-163-031-11	CERAMIC CHIP 0.01μF 50V	
C407	1-163-031-11	CERAMIC CHIP 0.01μF 50V	
C408	1-163-031-11	CERAMIC CHIP 0.01μF 50V	
C410	1-163-031-11	CERAMIC CHIP 0.01μF 50V	
C411	1-163-031-11	CERAMIC CHIP 0.01μF 50V	
C412	1-163-031-11	CERAMIC CHIP 0.01μF 50V	
C413	1-163-031-11	CERAMIC CHIP 0.01μF 50V	
C414	1-163-031-11	CERAMIC CHIP 0.01μF 50V	
C415	1-163-031-11	CERAMIC CHIP 0.01μF 50V	
C419	1-163-031-11	CERAMIC CHIP 0.01μF 50V	
C420	1-163-031-11	CERAMIC CHIP 0.01μF 50V	
C421	1-163-031-11	CERAMIC CHIP 0.01μF 50V	
C422	1-163-031-11	CERAMIC CHIP 0.01μF 50V	
C423	1-163-031-11	CERAMIC CHIP 0.01μF 50V	
C424	1-163-031-11	CERAMIC CHIP 0.01μF 50V	
C426	1-163-031-11	CERAMIC CHIP 0.01μF 50V	
C427	1-163-031-11	CERAMIC CHIP 0.01μF 50V	
C428	1-163-031-11	CERAMIC CHIP 0.01μF 50V	
C429	1-163-031-11	CERAMIC CHIP 0.01μF 50V	
C430	1-163-031-11	CERAMIC CHIP 0.01μF 50V	
C431	1-163-031-11	CERAMIC CHIP 0.01μF 50V	
C450	1-126-935-11	ELECT 470μF 20% 16V	
C451	1-124-455-00	ELECT 100μF 20% 16V	
C452	1-163-031-11	CERAMIC CHIP 0.01μF 50V	
C453	1-126-935-11	ELECT 470μF 20% 16V	
C454	1-124-455-00	ELECT 100μF 20% 16V	
C455	1-163-031-11	CERAMIC CHIP 0.01μF 50V	
C650	1-163-031-11	CERAMIC CHIP 0.01μF 50V	
C651	1-163-031-11	CERAMIC CHIP 0.01μF 50V	
C652	1-163-031-11	CERAMIC CHIP 0.01μF 50V	
C653	1-163-031-11	CERAMIC CHIP 0.01μF 50V	
C741	1-126-964-11	ELECT 10μF 20% 50V	
C742	1-163-031-11	CERAMIC CHIP 0.01μF 50V	
C743	1-126-964-11	ELECT 10μF 20% 50V	
C744	1-163-031-11	CERAMIC CHIP 0.01μF 50V	
C745	1-163-031-11	CERAMIC CHIP 0.01μF 50V	
C746	1-126-964-11	ELECT 10μF 20% 50V	
C747	1-126-964-11	ELECT 10μF 20% 50V	
C748	1-163-031-11	CERAMIC CHIP 0.01μF 50V	
C749	1-163-031-11	CERAMIC CHIP 0.01μF 50V	
C750	1-126-964-11	ELECT 10μF 20% 50V	
C751	1-126-964-11	ELECT 10μF 20% 50V	
C752	1-163-031-11	CERAMIC CHIP 0.01μF 50V	
C900	1-163-031-11	CERAMIC CHIP 0.01μF 50V	
C901	1-163-031-11	CERAMIC CHIP 0.01μF 50V	
C902	1-163-031-11	CERAMIC CHIP 0.01μF 50V	
C903	1-163-031-11	CERAMIC CHIP 0.01μF 50V	
C904	1-163-031-11	CERAMIC CHIP 0.01μF 50V	
C905	1-163-031-11	CERAMIC CHIP 0.01μF 50V	
C980	1-126-967-11	ELECT 47μF 20% 16V	
		<CONNECTOR>	
CN185	*1-564-525-11	PLUG, CONNECTOR 10P	
CN186	*1-564-525-11	PLUG, CONNECTOR 10P	
CN187	*1-564-525-11	PLUG, CONNECTOR 10P	
		<DIODE>	
D503	8-719-911-19	DIODE 1SS119-25	
D505	8-719-106-17	DIODE RD6.8M-B2	
D506	8-719-106-17	DIODE RD6.8M-B2	
D507	8-719-106-17	DIODE RD6.8M-B2	
D510	8-719-900-95	DIODE V09G	
D511	8-719-900-95	DIODE V09G	

REF. NO.	PART NO.	DESCRIPTION	REMARK
		<IC>	
IC501	8-759-144-82	IC μPC2405HF	
IC502	8-759-247-67	IC LM2990T-5.0	
IC503	8-759-042-02	IC S-80743AL-A7-S	
IC504	8-752-068-37	IC CXA1726AM	
IC505	8-752-068-37	IC CXA1726AM	
IC506	8-752-068-37	IC CXA1726AM	
IC517	8-759-926-48	IC SN74HC244ANS	
IC518	8-759-926-67	IC SN74HC374ANS	
IC519	8-759-267-60	IC μPD74HC238GS-E2	
IC520	8-759-267-60	IC μPD74HC238GS-E2	
IC523	8-759-041-45	IC DAC8840FS	
IC524	8-759-041-45	IC DAC8840FS	
IC525	8-759-041-45	IC DAC8840FS	
IC526	8-759-041-45	IC DAC8840FS	
IC527	8-759-041-45	IC DAC8840FS	
IC528	8-759-041-45	IC DAC8840FS	
IC530	8-759-041-45	IC DAC8840FS	
IC531	8-759-041-45	IC DAC8840FS	
IC532	8-759-041-45	IC DAC8840FS	
IC533	8-759-041-45	IC DAC8840FS	
IC534	8-759-041-45	IC DAC8840FS	
IC535	8-759-041-45	IC DAC8840FS	
IC601	8-759-114-06	IC μPC814G2-1	
IC602	8-759-114-06	IC μPC814G2-1	
IC603	8-759-114-06	IC μPC814G2-1	
		<COIL>	
L501	1-459-155-00	COIL (WITH CORE) 45μH	
L502	1-459-155-00	COIL (WITH CORE) 45μH	
		<RESISTOR>	
R402	1-208-810-11	METAL CHIP 15K 0.50% 1/10W	
R403	1-208-810-11	METAL CHIP 15K 0.50% 1/10W	
R404	1-216-627-11	METAL CHIP 100 0.50% 1/10W	
R405	1-208-810-11	METAL CHIP 15K 0.50% 1/10W	
R406	1-208-810-11	METAL CHIP 15K 0.50% 1/10W	
R407	1-216-627-11	METAL CHIP 100 0.50% 1/10W	
R408	1-208-810-11	METAL CHIP 15K 0.50% 1/10W	
R409	1-208-810-11	METAL CHIP 15K 0.50% 1/10W	
R412	1-208-810-11	METAL CHIP 15K 0.50% 1/10W	
R413	1-208-810-11	METAL CHIP 15K 0.50% 1/10W	
R414	1-216-627-11	METAL CHIP 100 0.50% 1/10W	
R415	1-216-627-11	METAL CHIP 100 0.50% 1/10W	
R417	1-208-810-11	METAL CHIP 15K 0.50% 1/10W	
R418	1-208-810-11	METAL CHIP 15K 0.50% 1/10W	
R419	1-208-810-11	METAL CHIP 15K 0.50% 1/10W	
R420	1-208-810-11	METAL CHIP 15K 0.50% 1/10W	
R421	1-216-627-11	METAL CHIP 100 0.50% 1/10W	
R422	1-216-627-11	METAL CHIP 100 0.50% 1/10W	
R423	1-208-810-11	METAL CHIP 15K 0.50% 1/10W	
R424	1-208-810-11	METAL CHIP 15K 0.50% 1/10W	
R425	1-208-810-11	METAL CHIP 15K 0.50% 1/10W	
R426	1-208-810-11	METAL CHIP 15K 0.50% 1/10W	
R427	1-216-627-11	METAL CHIP 100 0.50% 1/10W	
R428	1-216-627-11	METAL CHIP 100 0.50% 1/10W	
R429	1-208-810-11	METAL CHIP 15K 0.50% 1/10W	
R430	1-208-810-11	METAL CHIP 15K 0.50% 1/10W	
R431	1-208-810-11	METAL CHIP 15K 0.50% 1/10W	
R432	1-208-810-11	METAL CHIP 15K 0.50% 1/10W	
R433	1-216-627-11	METAL CHIP 100 0.50% 1/10W	
R436	1-216-627-11	METAL CHIP 100 0.50% 1/10W	
R437	1-208-810-11	METAL CHIP 15K 0.50% 1/10W	
R438	1-208-810-11	METAL CHIP 15K 0.50% 1/10W	
R439	1-208-810-11	METAL CHIP 15K 0.50% 1/10W	
R440	1-208-810-11	METAL CHIP 15K 0.50% 1/10W	

DE

REF. NO.	PART NO.	DESCRIPTION			REMARK
R441	1-216-627-11	METAL CHIP	100	0.50%	1/10W
R442	1-216-627-11	METAL CHIP	100	0.50%	1/10W
R444	1-208-810-11	METAL CHIP	15K	0.50%	1/10W
R446	1-208-810-11	METAL CHIP	15K	0.50%	1/10W
R447	1-208-806-11	METAL CHIP	10K	0.50%	1/10W
R448	1-208-810-11	METAL CHIP	15K	0.50%	1/10W
R450	1-208-810-11	METAL CHIP	15K	0.50%	1/10W
R451	1-208-806-11	METAL CHIP	10K	0.50%	1/10W
R452	1-208-810-11	METAL CHIP	15K	0.50%	1/10W
R453	1-208-810-11	METAL CHIP	15K	0.50%	1/10W
R454	1-208-806-11	METAL CHIP	10K	0.50%	1/10W
R455	1-208-810-11	METAL CHIP	15K	0.50%	1/10W
R456	1-208-810-11	METAL CHIP	15K	0.50%	1/10W
R457	1-208-806-11	METAL CHIP	10K	0.50%	1/10W
R458	1-208-810-11	METAL CHIP	15K	0.50%	1/10W
R459	1-208-810-11	METAL CHIP	15K	0.50%	1/10W
R460	1-208-806-11	METAL CHIP	10K	0.50%	1/10W
R461	1-208-810-11	METAL CHIP	15K	0.50%	1/10W
R462	1-208-806-11	METAL CHIP	10K	0.50%	1/10W
R463	1-208-810-11	METAL CHIP	15K	0.50%	1/10W
R469	1-208-810-11	METAL CHIP	15K	0.50%	1/10W
R470	1-208-810-11	METAL CHIP	15K	0.50%	1/10W
R471	1-216-627-11	METAL CHIP	100	0.50%	1/10W
R472	1-216-627-11	METAL CHIP	100	0.50%	1/10W
R473	1-208-810-11	METAL CHIP	15K	0.50%	1/10W
R474	1-208-810-11	METAL CHIP	15K	0.50%	1/10W
R475	1-208-810-11	METAL CHIP	15K	0.50%	1/10W
R476	1-208-810-11	METAL CHIP	15K	0.50%	1/10W
R477	1-216-627-11	METAL CHIP	100	0.50%	1/10W
R478	1-216-627-11	METAL CHIP	100	0.50%	1/10W
R479	1-208-810-11	METAL CHIP	15K	0.50%	1/10W
R480	1-208-810-11	METAL CHIP	15K	0.50%	1/10W
R481	1-208-810-11	METAL CHIP	15K	0.50%	1/10W
R482	1-208-810-11	METAL CHIP	15K	0.50%	1/10W
R483	1-216-627-11	METAL CHIP	100	0.50%	1/10W
R484	1-216-627-11	METAL CHIP	100	0.50%	1/10W
R485	1-208-810-11	METAL CHIP	15K	0.50%	1/10W
R486	1-208-810-11	METAL CHIP	15K	0.50%	1/10W
R487	1-208-810-11	METAL CHIP	15K	0.50%	1/10W
R488	1-208-810-11	METAL CHIP	15K	0.50%	1/10W
R489	1-216-627-11	METAL CHIP	100	0.50%	1/10W
R490	1-216-627-11	METAL CHIP	100	0.50%	1/10W
R491	1-208-810-11	METAL CHIP	15K	0.50%	1/10W
R492	1-208-810-11	METAL CHIP	15K	0.50%	1/10W
R493	1-208-810-11	METAL CHIP	15K	0.50%	1/10W
R494	1-208-810-11	METAL CHIP	15K	0.50%	1/10W
R495	1-216-627-11	METAL CHIP	100	0.50%	1/10W
R496	1-208-810-11	METAL CHIP	15K	0.50%	1/10W
R497	1-208-810-11	METAL CHIP	15K	0.50%	1/10W
R498	1-208-810-11	METAL CHIP	15K	0.50%	1/10W
R499	1-208-810-11	METAL CHIP	15K	0.50%	1/10W
R500	1-216-627-11	METAL CHIP	100	0.50%	1/10W
R502	1-216-627-11	METAL CHIP	100	0.50%	1/10W
R503	1-208-810-11	METAL CHIP	15K	0.50%	1/10W
R504	1-208-810-11	METAL CHIP	15K	0.50%	1/10W
R511	1-216-627-11	METAL CHIP	100	0.50%	1/10W
R516	1-208-810-11	METAL CHIP	15K	0.50%	1/10W
R517	1-208-806-11	METAL CHIP	10K	0.50%	1/10W
R518	1-208-810-11	METAL CHIP	15K	0.50%	1/10W
R519	1-208-810-11	METAL CHIP	15K	0.50%	1/10W
R520	1-208-806-11	METAL CHIP	10K	0.50%	1/10W
R521	1-208-810-11	METAL CHIP	15K	0.50%	1/10W
R522	1-208-810-11	METAL CHIP	15K	0.50%	1/10W
R523	1-208-806-11	METAL CHIP	10K	0.50%	1/10W
R524	1-208-810-11	METAL CHIP	15K	0.50%	1/10W
R525	1-208-810-11	METAL CHIP	15K	0.50%	1/10W
R526	1-208-806-11	METAL CHIP	10K	0.50%	1/10W
R527	1-208-810-11	METAL CHIP	15K	0.50%	1/10W
R528	1-208-810-11	METAL CHIP	15K	0.50%	1/10W
R529	1-208-806-11	METAL CHIP	10K	0.50%	1/10W
R530	1-208-810-11	METAL CHIP	15K	0.50%	1/10W
R531	1-208-810-11	METAL CHIP	15K	0.50%	1/10W
R532	1-208-806-11	METAL CHIP	10K	0.50%	1/10W
R533	1-208-810-11	METAL CHIP	15K	0.50%	1/10W
R650	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R651	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R652	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R653	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R654	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R655	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R656	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R657	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R658	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R659	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R660	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R661	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R662	1-216-025-91	METAL GLAZE	100	5%	1/10W
R663	1-216-025-91	METAL GLAZE	100	5%	1/10W
R664	1-216-025-91	METAL GLAZE	100	5%	1/10W
R665	1-216-025-91	METAL GLAZE	100	5%	1/10W
R666	1-216-025-91	METAL GLAZE	100	5%	1/10W
R667	1-216-025-91	METAL GLAZE	100	5%	1/10W
R668	1-216-025-91	METAL GLAZE	100	5%	1/10W
R669	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R670	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R672	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R673	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R674	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R675	1-216-025-91	METAL GLAZE	100	5%	1/10W
R676	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R677	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R679	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R680	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R856	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R858	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R860	1-208-800-11	METAL CHIP	5.6K	0.50%	1/10W
R861	1-216-699-11	METAL CHIP	100K	0.50%	1/10W
R862	1-208-800-11	METAL CHIP	5.6K	0.50%	1/10W
R863	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W
R864	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W
R900	1-216-663-11	METAL CHIP	3.3K	0.50%	1/10W
R901	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R902	1-216-639-11	METAL CHIP	330	0.50%	1/10W
R903	1-216-663-11	METAL CHIP	3.3K	0.50%	1/10W
R904	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R905	1-216-639-11	METAL CHIP	330	0.50%	1/10W
R906	1-216-663-11	METAL CHIP	3.3K	0.50%	1/10W
R907	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R908	1-216-639-11	METAL CHIP	330	0.50%	1/10W
R909	1-216-663-11	METAL CHIP	3.3K	0.50%	1/10W
R910	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R911	1-216-639-11	METAL CHIP	330	0.50%	1/10W
R912	1-216-663-11	METAL CHIP	3.3K	0.50%	1/10W
R913	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R914	1-216-639-11	METAL CHIP	330	0.50%	1/10W
R915	1-216-663-11	METAL CHIP	3.3K	0.50%	1/10W
R916	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R917	1-216-639-11	METAL CHIP	330	0.50%	1/10W
R980	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W

<VARIABLE RESISTOR>

RV701	1-241-766-11	RES, ADJ, CERMET	47K
RV702	1-241-766-11	RES, ADJ, CERMET	47K
RV703	1-241-766-11	RES, ADJ, CERMET	47K

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DC

REF. NO.	PART NO.	DESCRIPTION				REMARK
	*A-1346-181-A	DC BOARD, COMPLETE				
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	4-382-854-11	SCREW (M3X10), P, SW (+)				
	*4-395-525-01	HOLDER (D), TR				
	*4-395-527-01	HOLDER (B), TR				
	4-874-042-00	SHEET, INSULATING				
		<CAPACITOR>				
C1	1-124-122-11	ELECT	100µF	20%	50V	
C2	1-104-665-11	ELECT	100µF	20%	16V	
C3	1-124-122-11	ELECT	100µF	20%	50V	
C4	1-104-665-11	ELECT	100µF	20%	16V	
C5	1-124-122-11	ELECT	100µF	20%	50V	
C6	1-102-963-00	CERAMIC	33pF	5%	50V	
C7	1-102-963-00	CERAMIC	33pF	5%	50V	
C8	1-136-157-00	FILM	0.022µF	5%	50V	
C9	1-124-903-11	ELECT	1µF	20%	50V	
C10	1-124-122-11	ELECT	100µF	20%	50V	
C11	1-102-963-00	CERAMIC	33pF	5%	50V	
C12	1-102-963-00	CERAMIC	33pF	5%	50V	
C13	1-136-157-00	FILM	0.022µF	5%	50V	
C14	1-124-903-11	ELECT	1µF	20%	50V	
C15	1-124-122-11	ELECT	100µF	20%	50V	
C16	1-102-963-00	CERAMIC	33pF	5%	50V	
C17	1-102-963-00	CERAMIC	33pF	5%	50V	
C18	1-136-157-00	FILM	0.022µF	5%	50V	
C19	1-124-903-11	ELECT	1µF	20%	50V	
C20	1-136-173-00	FILM	0.47µF	5%	50V	
C21	1-124-556-11	ELECT	2200µF	20%	16V	
C22	1-124-556-11	ELECT	2200µF	20%	16V	
C23	1-124-556-11	ELECT	2200µF	20%	16V	
C24	1-136-165-00	FILM	0.1µF	5%	50V	
C25	1-136-165-00	FILM	0.1µF	5%	50V	
C26	1-136-165-00	FILM	0.1µF	5%	50V	
C27	1-136-165-00	FILM	0.1µF	5%	50V	
C28	1-136-165-00	FILM	0.1µF	5%	50V	
C29	1-136-165-00	FILM	0.1µF	5%	50V	
C30	1-136-165-00	FILM	0.1µF	5%	50V	
C31	1-136-165-00	FILM	0.1µF	5%	50V	
C32	1-136-165-00	FILM	0.1µF	5%	50V	
C33	1-104-664-11	ELECT	47µF	20%	16V	
C34	1-124-903-11	ELECT	1µF	20%	50V	
C35	1-126-942-61	ELECT	1000µF	20%	16V	
C36	1-124-907-11	ELECT	10µF	20%	50V	
C37	1-124-907-11	ELECT	10µF	20%	50V	
C38	1-104-665-11	ELECT	100µF	20%	16V	
C101	1-102-978-00	CERAMIC	220pF	5%	50V	
C102	1-124-903-11	ELECT	1µF	20%	50V	
C103	1-101-004-00	CERAMIC	0.01µF	50V		
C104	1-124-122-11	ELECT	100µF	20%	50V	
C105	1-126-972-11	ELECT	1000µF	20%	50V	
C106	1-124-903-11	ELECT	1µF	20%	50V	
C107	1-101-004-00	CERAMIC	0.01µF	50V		
C108	1-124-122-11	ELECT	100µF	20%	50V	
C109	1-126-972-11	ELECT	1000µF	20%	50V	
C110	1-136-171-00	FILM	0.33µF	5%	50V	
C111	1-136-171-00	FILM	0.33µF	5%	50V	
C112	1-102-824-00	CERAMIC	470pF	5%	50V	
C113	1-102-973-00	CERAMIC	100pF	5%	50V	
C201	1-137-365-11	FILM	0.0015µF	5%	50V	
C202	1-102-973-00	CERAMIC	100pF	5%	50V	
C203	1-102-973-00	CERAMIC	100pF	5%	50V	
C204	1-136-153-00	FILM	0.01µF	5%	50V	
C205	1-104-664-11	ELECT	47µF	20%	16V	
C206	1-124-122-11	ELECT	100µF	20%	50V	
C207	1-101-004-00	CERAMIC	0.01µF	50V		
C208	1-124-122-11	ELECT	100µF	20%	50V	

REF. NO.	PART NO.	DESCRIPTION				REMARK
C209	1-101-004-00	CERAMIC	0.01µF	50V		
C210	1-137-365-11	FILM	0.0015µF	5%	50V	
C211	1-102-973-00	CERAMIC	100pF	5%	50V	
C212	1-102-973-00	CERAMIC	100pF	5%	50V	
C213	1-136-153-00	FILM	0.01µF	5%	50V	
C214	1-104-664-11	ELECT	47µF	20%	16V	
C215	1-124-122-11	ELECT	100µF	20%	50V	
C216	1-101-004-00	CERAMIC	0.01µF	50V		
C217	1-124-122-11	ELECT	100µF	20%	50V	
C218	1-101-004-00	CERAMIC	0.01µF	50V		
C219	1-137-365-11	FILM	0.0015µF	5%	50V	
C220	1-102-973-00	CERAMIC	100pF	5%	50V	
C221	1-102-973-00	CERAMIC	100pF	5%	50V	
C222	1-136-153-00	FILM	0.01µF	5%	50V	
C223	1-104-664-11	ELECT	47µF	20%	16V	
C224	1-124-122-11	ELECT	100µF	20%	50V	
C225	1-101-004-00	CERAMIC	0.01µF	50V		
C226	1-124-122-11	ELECT	100µF	20%	50V	
C227	1-101-004-00	CERAMIC	0.01µF	50V		
C228	1-124-907-11	ELECT	10µF	20%	50V	
C229	1-101-004-00	CERAMIC	0.01µF	50V		
C230	1-124-907-11	ELECT	10µF	20%	50V	
C231	1-101-004-00	CERAMIC	0.01µF	50V		
C232	1-124-907-11	ELECT	10µF	20%	50V	
C233	1-101-004-00	CERAMIC	0.01µF	50V		
C234	1-124-907-11	ELECT	10µF	20%	50V	
C235	1-101-004-00	CERAMIC	0.01µF	50V		
C236	1-124-907-11	ELECT	10µF	20%	50V	
C237	1-101-004-00	CERAMIC	0.01µF	50V		
C238	1-124-907-11	ELECT	10µF	20%	50V	
C239	1-101-004-00	CERAMIC	0.01µF	50V		
C243	1-102-121-00	CERAMIC	0.0022µF	10%	50V	
C244	1-102-121-00	CERAMIC	0.0022µF	10%	50V	
C245	1-102-121-00	CERAMIC	0.0022µF	10%	50V	
C246	1-102-947-00	CERAMIC	10pF	0.5pF	50V	
C247	1-137-364-11	FILM	0.001µF	5%	50V	
C248	1-102-947-00	CERAMIC	10pF	0.5pF	50V	
C249	1-137-364-11	FILM	0.001µF	5%	50V	
C250	1-102-947-00	CERAMIC	10pF	0.5pF	50V	
C251	1-137-364-11	FILM	0.001µF	5%	50V	
C301	1-137-365-11	FILM	0.0015µF	5%	50V	
C302	1-102-973-00	CERAMIC	100pF	5%	50V	
C303	1-102-973-00	CERAMIC	100pF	5%	50V	
C304	1-136-153-00	FILM	0.01µF	5%	50V	
C305	1-104-664-11	ELECT	47µF	20%	16V	
C306	1-124-122-11	ELECT	100µF	20%	50V	
C307	1-101-004-00	CERAMIC	0.01µF	50V		
C308	1-124-122-11	ELECT	100µF	20%	50V	
C309	1-101-004-00	CERAMIC	0.01µF	50V		
C310	1-137-365-11	FILM	0.0015µF	5%	50V	
C311	1-102-973-00	CERAMIC	100pF	5%	50V	
C312	1-102-973-00	CERAMIC	100pF	5%	50V	
C313	1-136-153-00	FILM	0.01µF	5%	50V	
C314	1-104-664-11	ELECT	47µF	20%	16V	
C315	1-124-122-11	ELECT	100µF	20%	50V	
C316	1-101-004-00	CERAMIC	0.01µF	50V		
C317	1-124-122-11	ELECT	100µF	20%	50V	
C318	1-101-004-00	CERAMIC	0.01µF	50V		
C319	1-137-365-11	FILM	0.0015µF	5%	50V	
C320	1-102-973-00	CERAMIC	100pF	5%	50V	
C321	1-102-973-00	CERAMIC	100pF	5%	50V	
C322	1-136-153-00	FILM	0.01µF	5%	50V	
C323	1-104-664-11	ELECT	47µF	20%	16V	
C324	1-104-664-11	ELECT	47µF	20%	16V	
C325	1-101-004-00	CERAMIC	0.01µF	50V		
C326	1-104-664-11	ELECT	47µF	20%	16V	
C327	1-101-004-00	CERAMIC	0.01µF	50V		
C328	1-124-907-11	ELECT	10µF	20%	50V	

DC

REF. NO.	PART NO.	DESCRIPTION			REMARK
C329	1-101-004-00	CERAMIC	0.01µF	50V	
C330	1-124-907-11	ELECT	10µF	20%	50V
C331	1-101-004-00	CERAMIC	0.01µF	50V	
C332	1-124-907-11	ELECT	10µF	20%	50V
C333	1-101-004-00	CERAMIC	0.01µF	50V	
C334	1-124-907-11	ELECT	10µF	20%	50V
C335	1-101-004-00	CERAMIC	0.01µF	50V	
C336	1-124-907-11	ELECT	10µF	20%	50V
C337	1-101-004-00	CERAMIC	0.01µF	50V	
C338	1-124-907-11	ELECT	10µF	20%	50V
C339	1-101-004-00	CERAMIC	0.01µF	50V	
C343	1-102-119-00	CERAMIC	0.0015µF	10%	50V
C344	1-102-119-00	CERAMIC	0.0015µF	10%	50V
C345	1-102-119-00	CERAMIC	0.0015µF	10%	50V
C346	1-102-947-00	CERAMIC	10pF	0.5pF	50V
C347	1-137-364-11	FILM	0.001µF	5%	50V
C348	1-102-947-00	CERAMIC	10pF	0.5pF	50V
C349	1-137-364-11	FILM	0.001µF	5%	50V
C350	1-102-947-00	CERAMIC	10pF	0.5pF	50V
C351	1-137-364-11	FILM	0.001µF	5%	50V

<DIODE>

REF. NO.	PART NO.	DESCRIPTION	REMARK
D1	8-719-900-95	DIODE V09G	
D2	8-719-900-95	DIODE V09G	
D3	8-719-900-95	DIODE V09G	
D4	8-719-911-19	DIODE 1SS119-25	
D5	8-719-900-95	DIODE V09G	
D6	8-719-911-19	DIODE 1SS119-25	
D7	8-719-900-95	DIODE V09G	
D8	8-719-911-19	DIODE 1SS119-25	
D9	8-719-911-19	DIODE 1SS119-25	
D10	8-719-911-19	DIODE 1SS119-25	
D11	8-719-911-19	DIODE 1SS119-25	
D12	8-719-911-19	DIODE 1SS119-25	
D15	8-719-911-19	DIODE 1SS119-25	
D16	8-719-911-19	DIODE 1SS119-25	
D17	8-719-911-19	DIODE 1SS119-25	
D101	8-719-911-19	DIODE 1SS119-25	
D102	8-719-908-20	DIODE ERC88-009	
D103	8-719-908-20	DIODE ERC88-009	
D104	8-719-911-19	DIODE 1SS119-25	
D105	8-719-908-20	DIODE ERC88-009	
D106	8-719-908-20	DIODE ERC88-009	
D107	8-719-109-66	DIODE RD3.3ESB2	
D108	8-719-109-66	DIODE RD3.3ESB2	
D201	8-719-110-41	DIODE RD15ESB2	
D202	8-719-109-66	DIODE RD3.3ESB2	
D203	8-719-911-19	DIODE 1SS119-25	
D204	8-719-911-19	DIODE 1SS119-25	
D205	8-719-110-41	DIODE RD15ESB2	
D206	8-719-109-66	DIODE RD3.3ESB2	
D207	8-719-911-19	DIODE 1SS119-25	
D208	8-719-911-19	DIODE 1SS119-25	
D209	8-719-110-41	DIODE RD15ESB2	
D210	8-719-109-66	DIODE RD3.3ESB2	
D211	8-719-911-19	DIODE 1SS119-25	
D212	8-719-911-19	DIODE 1SS119-25	
D301	8-719-110-41	DIODE RD15ESB2	
D302	8-719-109-66	DIODE RD3.3ESB2	
D303	8-719-911-19	DIODE 1SS119-25	
D304	8-719-911-19	DIODE 1SS119-25	
D305	8-719-110-41	DIODE RD15ESB2	
D306	8-719-109-66	DIODE RD3.3ESB2	
D307	8-719-911-19	DIODE 1SS119-25	
D308	8-719-911-19	DIODE 1SS119-25	
D309	8-719-110-41	DIODE RD15ESB2	
D310	8-719-109-66	DIODE RD3.3ESB2	
D311	8-719-911-19	DIODE 1SS119-25	
D312	8-719-911-19	DIODE 1SS119-25	

<CONNECTOR>

REF. NO.	PART NO.	DESCRIPTION	REMARK
DC-1	*1-564-514-11	PLUG, CONNECTOR 11P	
DC-2	*1-564-509-11	PLUG, CONNECTOR 6P	
DC-3	*1-564-515-11	PLUG, CONNECTOR 12P	
DC-4	*1-564-507-11	PLUG, CONNECTOR 4P	
DC-5	*1-564-507-11	PLUG, CONNECTOR 4P	
DC-6	*1-564-507-11	PLUG, CONNECTOR 4P	
DC-7	*1-564-507-11	PLUG, CONNECTOR 4P	
DC-8	*1-564-507-11	PLUG, CONNECTOR 4P	
DC-9	*1-564-507-11	PLUG, CONNECTOR 4P	
DC-10	*1-564-508-11	PLUG, CONNECTOR 5P	
DC-11	*1-564-508-11	PLUG, CONNECTOR 5P	
DC-12	*1-564-508-11	PLUG, CONNECTOR 5P	
DC-13	*1-564-509-11	PLUG, CONNECTOR 6P	
DC-14	1-508-742-00	PIN, CONNECTOR 3P	
DC-15	1-508-742-00	PIN, CONNECTOR 3P	
DC-17	1-564-505-11	PLUG, CONNECTOR 2P	
DC-18	1-564-505-11	PLUG, CONNECTOR 2P	

<FERRITE BEAD>

REF. NO.	PART NO.	DESCRIPTION	REMARK
FB1	1-410-396-41	FERRITE BEAD INDUCTOR 0.45µH	
FB2	1-410-396-41	FERRITE BEAD INDUCTOR 0.45µH	
FB3	1-410-396-41	FERRITE BEAD INDUCTOR 0.45µH	
FB4	1-410-396-41	FERRITE BEAD INDUCTOR 0.45µH	

<IC>

REF. NO.	PART NO.	DESCRIPTION	REMARK
IC1	8-759-231-58	IC TA7812S	
IC2	8-759-929-65	IC LM7912CT	
IC3	8-759-145-58	IC µPC4558C	
IC4	8-759-113-13	IC µPC1498H	
IC5	8-759-145-58	IC µPC4558C	
IC6	8-759-113-13	IC µPC1498H	
IC7	8-759-145-58	IC µPC4558C	
IC8	8-759-113-13	IC µPC1498H	
IC9	8-759-145-58	IC µPC4558C	
IC101	8-759-109-82	IC µPC814C	
IC102	8-759-109-82	IC µPC814C	
IC103	8-759-109-82	IC µPC814C	
IC201	8-759-973-02	IC LM6364N	
IC202	8-759-973-02	IC LM6364N	
IC203	8-759-973-02	IC LM6364N	
IC301	8-759-973-02	IC LM6364N	
IC302	8-759-973-02	IC LM6364N	
IC303	8-759-973-02	IC LM6364N	

<COIL>

REF. NO.	PART NO.	DESCRIPTION	REMARK
L103	1-459-155-00	COIL (WITH CORE) 45µH	
L104	1-459-155-00	COIL (WITH CORE) 45µH	

<TRANSISTOR>

REF. NO.	PART NO.	DESCRIPTION	REMARK
Q1	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q2	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q3	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q4	8-729-900-89	TRANSISTOR DTC144ES	
Q5	8-729-900-89	TRANSISTOR DTC144ES	
Q6	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q8	8-729-900-89	TRANSISTOR DTC144ES	
Q9	8-729-207-89	TRANSISTOR 2SA1358-Y	
Q10	8-729-207-82	TRANSISTOR 2SC3421-Y	
Q14	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q101	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q102	8-729-105-74	TRANSISTOR 2SK523-M1	

REF. NO.	PART NO.	DESCRIPTION			REMARK	
Q103	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q104	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q105	8-729-142-68	TRANSISTOR 2SJ143				
Q106	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q107	8-729-119-76	TRANSISTOR 2SA1175-HFE				
Q108	8-729-142-69	TRANSISTOR 2SK817				
Q201	8-729-207-89	TRANSISTOR 2SA1358-Y				
Q202	8-729-207-82	TRANSISTOR 2SC3421-Y				
Q203	8-729-142-74	TRANSISTOR 2SD1977				
Q204	8-729-142-70	TRANSISTOR 2SB1315				
Q205	8-729-207-89	TRANSISTOR 2SA1358-Y				
Q206	8-729-207-82	TRANSISTOR 2SC3421-Y				
Q207	8-729-142-74	TRANSISTOR 2SD1977				
Q208	8-729-142-70	TRANSISTOR 2SB1315				
Q209	8-729-207-89	TRANSISTOR 2SA1358-Y				
Q210	8-729-207-82	TRANSISTOR 2SC3421-Y				
Q211	8-729-142-74	TRANSISTOR 2SD1977				
Q212	8-729-142-70	TRANSISTOR 2SB1315				
Q301	8-729-207-89	TRANSISTOR 2SA1358-Y				
Q302	8-729-207-82	TRANSISTOR 2SC3421-Y				
Q303	8-729-142-74	TRANSISTOR 2SD1977				
Q304	8-729-142-70	TRANSISTOR 2SB1315				
Q305	8-729-207-89	TRANSISTOR 2SA1358-Y				
Q306	8-729-207-82	TRANSISTOR 2SC3421-Y				
Q307	8-729-142-74	TRANSISTOR 2SD1977				
Q308	8-729-142-70	TRANSISTOR 2SB1315				
Q309	8-729-207-89	TRANSISTOR 2SA1358-Y				
Q310	8-729-207-82	TRANSISTOR 2SC3421-Y				
Q311	8-729-142-74	TRANSISTOR 2SD1977				
Q312	8-729-142-70	TRANSISTOR 2SB1315				
		<RESISTOR>				
R1	1-215-463-00	METAL	56K	1%	1/4W	
R2	1-215-445-00	METAL	10K	1%	1/4W	
R3	1-215-445-00	METAL	10K	1%	1/4W	
R4	1-214-800-11	METAL	2.2	1%	1/2W	
R5	1-214-800-11	METAL	2.2	1%	1/2W	
R6	1-215-429-00	METAL	2.2K	1%	1/4W	
R7	1-215-421-00	METAL	1K	1%	1/4W	
R8	1-215-898-11	METAL OXIDE	10K	5%	2W	F
R9	1-247-863-91	CARBON	22K	5%	1/4W	
R10	1-249-417-11	CARBON	1K	5%	1/4W	
R11	1-249-441-11	CARBON	100K	5%	1/4W	
R12	1-249-429-11	CARBON	10K	5%	1/4W	
R13	1-249-429-11	CARBON	10K	5%	1/4W	
R14	1-249-429-11	CARBON	10K	5%	1/4W	
R15	1-215-463-00	METAL	56K	1%	1/4W	
R16	1-215-445-00	METAL	10K	1%	1/4W	
R17	1-215-445-00	METAL	10K	1%	1/4W	
R18	1-214-800-11	METAL	2.2	1%	1/2W	
R19	1-214-800-11	METAL	2.2	1%	1/2W	
R20	1-215-429-00	METAL	2.2K	1%	1/4W	
R21	1-215-421-00	METAL	1K	1%	1/4W	
R22	1-215-898-11	METAL OXIDE	10K	5%	2W	F
R23	1-247-863-91	CARBON	22K	5%	1/4W	
R24	1-249-417-11	CARBON	1K	5%	1/4W	
R25	1-249-441-11	CARBON	100K	5%	1/4W	
R26	1-249-429-11	CARBON	10K	5%	1/4W	
R27	1-249-429-11	CARBON	10K	5%	1/4W	
R28	1-249-429-11	CARBON	10K	5%	1/4W	
R29	1-215-463-00	METAL	56K	1%	1/4W	
R30	1-215-445-00	METAL	10K	1%	1/4W	
R31	1-215-445-00	METAL	10K	1%	1/4W	
R32	1-214-800-11	METAL	2.2	1%	1/2W	
R33	1-214-800-11	METAL	2.2	1%	1/2W	
R34	1-215-429-00	METAL	2.2K	1%	1/4W	
R35	1-215-421-00	METAL	1K	1%	1/4W	

REF. NO.	PART NO.	DESCRIPTION			REMARK	
R36	1-215-898-11	METAL OXIDE	10K	5%	2W	F
R37	1-247-863-91	CARBON	22K	5%	1/4W	
R38	1-249-417-11	CARBON	1K	5%	1/4W	
R39	1-249-441-11	CARBON	100K	5%	1/4W	
R40	1-249-429-11	CARBON	10K	5%	1/4W	
R41	1-249-429-11	CARBON	10K	5%	1/4W	
R42	1-249-429-11	CARBON	10K	5%	1/4W	
R43	1-249-429-11	CARBON	10K	5%	1/4W	
R44	1-249-429-11	CARBON	10K	5%	1/4W	
R45	1-249-417-11	CARBON	1K	5%	1/4W	
R46	1-247-863-91	CARBON	22K	5%	1/4W	
R47	1-247-863-91	CARBON	22K	5%	1/4W	
R48	1-249-429-11	CARBON	10K	5%	1/4W	
R49	1-249-429-11	CARBON	10K	5%	1/4W	
R50	1-249-437-11	CARBON	47K	5%	1/4W	
R51	1-249-417-11	CARBON	1K	5%	1/4W	
R52	1-249-417-11	CARBON	1K	5%	1/4W	
R55	1-215-883-11	METAL OXIDE	33	5%	2W	F
R56	1-247-863-91	CARBON	22K	5%	1/4W	
R57	1-249-429-11	CARBON	10K	5%	1/4W	
R58	1-249-417-11	CARBON	1K	5%	1/4W	
R59	1-216-449-11	METAL OXIDE	56	5%	2W	F
R60	1-216-449-11	METAL OXIDE	56	5%	2W	F
R61	1-215-463-00	METAL	56K	1%	1/4W	
R62	1-215-463-00	METAL	56K	1%	1/4W	
R63	1-215-463-00	METAL	56K	1%	1/4W	
R64	1-216-363-00	METAL OXIDE	0.33	5%	2W	F
R65	1-216-363-00	METAL OXIDE	0.33	5%	2W	F
R66	1-249-421-11	CARBON	2.2K	5%	1/4W	
R73	1-249-441-11	CARBON	100K	5%	1/4W	
R74	1-249-429-11	CARBON	10K	5%	1/4W	
R75	1-216-363-00	METAL OXIDE	0.33	5%	2W	F
R76	1-216-363-00	METAL OXIDE	0.33	5%	2W	F
R79	1-249-429-11	CARBON	10K	5%	1/4W	
R80	1-249-393-11	CARBON	10	5%	1/4W	
R81	1-249-393-11	CARBON	10	5%	1/4W	
R82	1-249-429-11	CARBON	10K	5%	1/4W	
R83	1-249-417-11	CARBON	1K	5%	1/4W	
R84	1-249-429-11	CARBON	10K	5%	1/4W	
R101	1-249-417-11	CARBON	1K	5%	1/4W	
R102	1-249-417-11	CARBON	1K	5%	1/4W	
R103	1-249-421-11	CARBON	2.2K	5%	1/4W	
R104	1-249-429-11	CARBON	10K	5%	1/4W	
R105	1-249-417-11	CARBON	1K	5%	1/4W	
R106	1-247-807-31	CARBON	100	5%	1/4W	
R107	1-249-393-11	CARBON	10	5%	1/4W	F
R108	1-249-393-11	CARBON	10	5%	1/4W	F
R109	1-249-417-11	CARBON	1K	5%	1/4W	
R110	1-249-393-11	CARBON	10	5%	1/4W	
R111	1-249-417-11	CARBON	1K	5%	1/4W	
R112	1-249-393-11	CARBON	10	5%	1/4W	F
R113	1-249-393-11	CARBON	10	5%	1/4W	F
R114	1-249-417-11	CARBON	1K	5%	1/4W	
R115	1-249-393-11	CARBON	10	5%	1/4W	
R201	1-215-425-00	METAL	1.5K	1%	1/4W	
R202	1-215-445-00	METAL	10K	1%	1/4W	
R203	1-215-421-00	METAL	1K	1%	1/4W	
R204	1-215-417-00	METAL	680	1%	1/4W	
R205	1-215-439-00	METAL	5.6K	1%	1/4W	
R206	1-215-421-00	METAL	1K	1%	1/4W	
R207	1-215-421-00	METAL	1K	1%	1/4W	
R208	1-214-814-11	METAL	8.2	1%	1/2W	
R209	1-214-814-11	METAL	8.2	1%	1/2W	
R210	1-214-814-11	METAL	8.2	1%	1/2W	
R211	1-214-814-11	METAL	8.2	1%	1/2W	
R212	1-214-814-11	METAL	8.2	1%	1/2W	
R213	1-214-814-11	METAL	8.2	1%	1/2W	
R214	1-249-435-11	CARBON	33K	5%	1/4W	
R215	1-249-426-11	CARBON	5.6K	5%	1/4W	

DC **E**

REF. NO.	PART NO.	DESCRIPTION			REMARK	
R216	1-249-415-11	CARBON	680	5%	1/4W	F
R217	1-249-427-11	CARBON	6.8K	5%	1/4W	
R218	1-249-407-11	CARBON	150	5%	1/4W	
R219	1-249-403-11	CARBON	68	5%	1/4W	F
R221	1-216-369-00	METAL OXIDE	1	5%	2W	F
R222	1-216-369-00	METAL OXIDE	1	5%	2W	F
R223	1-215-884-11	METAL OXIDE	47	5%	2W	F
R224	1-215-425-00	METAL	1.5K	1%	1/4W	
R225	1-215-445-00	METAL	10K	1%	1/4W	
R226	1-215-421-00	METAL	1K	1%	1/4W	
R227	1-215-417-00	METAL	680	1%	1/4W	
R228	1-215-439-00	METAL	5.6K	1%	1/4W	
R229	1-215-421-00	METAL	1K	1%	1/4W	
R230	1-215-421-00	METAL	1K	1%	1/4W	
R231	1-214-814-11	METAL	8.2	1%	1/2W	
R232	1-214-814-11	METAL	8.2	1%	1/2W	
R233	1-214-814-11	METAL	8.2	1%	1/2W	
R234	1-214-814-11	METAL	8.2	1%	1/2W	
R235	1-214-814-11	METAL	8.2	1%	1/2W	
R236	1-214-814-11	METAL	8.2	1%	1/2W	
R237	1-249-435-11	CARBON	33K	5%	1/4W	
R238	1-249-426-11	CARBON	5.6K	5%	1/4W	
R239	1-249-415-11	CARBON	680	5%	1/4W	F
R240	1-249-427-11	CARBON	6.8K	5%	1/4W	
R241	1-249-407-11	CARBON	150	5%	1/4W	
R242	1-249-403-11	CARBON	68	5%	1/4W	F
R244	1-216-369-00	METAL OXIDE	1	5%	2W	F
R245	1-216-369-00	METAL OXIDE	1	5%	2W	F
R246	1-215-884-11	METAL OXIDE	47	5%	2W	F
R247	1-215-425-00	METAL	1.5K	1%	1/4W	
R248	1-215-445-00	METAL	10K	1%	1/4W	
R249	1-215-421-00	METAL	1K	1%	1/4W	
R250	1-215-417-00	METAL	680	1%	1/4W	
R251	1-215-439-00	METAL	5.6K	1%	1/4W	
R252	1-215-421-00	METAL	1K	1%	1/4W	
R253	1-215-421-00	METAL	1K	1%	1/4W	
R254	1-214-814-11	METAL	8.2	1%	1/2W	
R255	1-214-814-11	METAL	8.2	1%	1/2W	
R256	1-214-814-11	METAL	8.2	1%	1/2W	
R257	1-214-814-11	METAL	8.2	1%	1/2W	
R258	1-214-814-11	METAL	8.2	1%	1/2W	
R259	1-214-814-11	METAL	8.2	1%	1/2W	
R260	1-249-435-11	CARBON	33K	5%	1/4W	
R261	1-249-426-11	CARBON	5.6K	5%	1/4W	
R262	1-249-415-11	CARBON	680	5%	1/4W	F
R263	1-249-427-11	CARBON	6.8K	5%	1/4W	
R264	1-249-407-11	CARBON	150	5%	1/4W	
R265	1-249-403-11	CARBON	68	5%	1/4W	F
R267	1-216-369-00	METAL OXIDE	1	5%	2W	F
R268	1-216-369-00	METAL OXIDE	1	5%	2W	F
R269	1-215-884-11	METAL OXIDE	47	5%	2W	F
R270	1-247-807-31	CARBON	100	5%	1/4W	
R271	1-247-807-31	CARBON	100	5%	1/4W	
R272	1-247-807-31	CARBON	100	5%	1/4W	
R273	1-247-807-31	CARBON	100	5%	1/4W	
R274	1-247-807-31	CARBON	100	5%	1/4W	
R275	1-247-807-31	CARBON	100	5%	1/4W	
R301	1-215-427-00	METAL	1.8K	1%	1/4W	
R302	1-215-445-00	METAL	10K	1%	1/4W	
R303	1-215-421-00	METAL	1K	1%	1/4W	
R304	1-215-411-00	METAL	390	1%	1/4W	
R305	1-215-435-00	METAL	3.9K	1%	1/4W	
R306	1-215-421-00	METAL	1K	1%	1/4W	
R307	1-215-421-00	METAL	1K	1%	1/4W	
R308	1-214-808-11	METAL	4.7	1%	1/2W	
R309	1-214-808-11	METAL	4.7	1%	1/2W	
R310	1-214-808-11	METAL	4.7	1%	1/2W	
R311	1-214-808-11	METAL	4.7	1%	1/2W	
R312	1-214-808-11	METAL	4.7	1%	1/2W	
R313	1-214-808-11	METAL	4.7	1%	1/2W	
R314	1-249-435-11	CARBON	33K	5%	1/4W	
R315	1-249-426-11	CARBON	5.6K	5%	1/4W	
R316	1-249-415-11	CARBON	680	5%	1/4W	F
R317	1-249-427-11	CARBON	6.8K	5%	1/4W	
R318	1-249-407-11	CARBON	150	5%	1/4W	
R319	1-249-403-11	CARBON	68	5%	1/4W	F
R321	1-216-363-00	METAL OXIDE	0.33	5%	2W	F
R322	1-216-363-00	METAL OXIDE	0.33	5%	2W	F
R323	1-215-884-11	METAL OXIDE	47	5%	2W	F
R324	1-215-427-00	METAL	1.8K	1%	1/4W	
R325	1-215-445-00	METAL	10K	1%	1/4W	
R326	1-215-421-00	METAL	1K	1%	1/4W	
R327	1-215-411-00	METAL	390	1%	1/4W	
R328	1-215-435-00	METAL	3.9K	1%	1/4W	
R329	1-215-421-00	METAL	1K	1%	1/4W	
R330	1-215-421-00	METAL	1K	1%	1/4W	
R331	1-214-808-11	METAL	4.7	1%	1/2W	
R332	1-214-808-11	METAL	4.7	1%	1/2W	
R333	1-214-808-11	METAL	4.7	1%	1/2W	
R334	1-214-808-11	METAL	4.7	1%	1/2W	
R335	1-214-808-11	METAL	4.7	1%	1/2W	
R336	1-214-808-11	METAL	4.7	1%	1/2W	
R337	1-249-435-11	CARBON	33K	5%	1/4W	
R338	1-249-426-11	CARBON	5.6K	5%	1/4W	
R339	1-249-415-11	CARBON	680	5%	1/4W	F
R340	1-249-427-11	CARBON	6.8K	5%	1/4W	
R341	1-249-407-11	CARBON	150	5%	1/4W	
R342	1-249-403-11	CARBON	68	5%	1/4W	F
R344	1-216-363-00	METAL OXIDE	0.33	5%	2W	F
R345	1-216-363-00	METAL OXIDE	0.33	5%	2W	F
R346	1-215-884-11	METAL OXIDE	47	5%	2W	F
R347	1-215-427-00	METAL	1.8K	1%	1/4W	
R348	1-215-445-00	METAL	10K	1%	1/4W	
R349	1-215-421-00	METAL	1K	1%	1/4W	
R350	1-215-411-00	METAL	390	1%	1/4W	
R351	1-215-435-00	METAL	3.9K	1%	1/4W	
R352	1-215-421-00	METAL	1K	1%	1/4W	
R353	1-215-421-00	METAL	1K	1%	1/4W	
R354	1-214-808-11	METAL	4.7	1%	1/2W	
R355	1-214-808-11	METAL	4.7	1%	1/2W	
R356	1-214-808-11	METAL	4.7	1%	1/2W	
R357	1-214-808-11	METAL	4.7	1%	1/2W	
R358	1-214-808-11	METAL	4.7	1%	1/2W	
R359	1-214-808-11	METAL	4.7	1%	1/2W	
R360	1-249-435-11	CARBON	33K	5%	1/4W	
R361	1-249-426-11	CARBON	5.6K	5%	1/4W	
R362	1-249-415-11	CARBON	680	5%	1/4W	F
R363	1-249-427-11	CARBON	6.8K	5%	1/4W	
R364	1-249-404-00	CARBON	82	5%	1/4W	
R365	1-249-400-11	CARBON	39	5%	1/4W	F
R367	1-216-363-00	METAL OXIDE	0.33	5%	2W	F
R368	1-216-363-00	METAL OXIDE	0.33	5%	2W	F
R369	1-215-884-11	METAL OXIDE	47	5%	2W	F
R370	1-247-807-31	CARBON	100	5%	1/4W	
R371	1-247-807-31	CARBON	100	5%	1/4W	
R372	1-247-807-31	CARBON	100	5%	1/4W	
R373	1-247-807-31	CARBON	100	5%	1/4W	
R374	1-247-807-31	CARBON	100	5%	1/4W	
R375	1-247-807-31	CARBON	100	5%	1/4W	

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* A-1346-190-A E BOARD, COMPLETE
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4-382-854-11 SCREW (M3X10), P, SW (+)

E

<CAPACITOR>

REF. NO.	PART NO.	DESCRIPTION			REMARK
C1	1-126-899-11	ELECT	3900µF	20%	16V
C2	1-126-899-11	ELECT	3900µF	20%	16V
C3	1-126-899-11	ELECT	3900µF	20%	16V
C4	1-102-824-00	CERAMIC	470pF	5%	50V
C5	1-136-153-00	FILM	0.01µF	5%	50V
C6	1-102-824-00	CERAMIC	470pF	5%	50V
C7	1-102-824-00	CERAMIC	470pF	5%	50V
C8	1-136-153-00	FILM	0.01µF	5%	50V
C9	1-102-824-00	CERAMIC	470pF	5%	50V
C10	1-136-153-00	FILM	0.01µF	5%	50V
C11	1-102-824-00	CERAMIC	470pF	5%	50V
C12	1-102-824-00	CERAMIC	470pF	5%	50V
C13	1-130-908-00	FILM	0.0039µF	3%	1.6KV
C14	1-130-908-00	FILM	0.0039µF	3%	1.6KV
C15	1-124-585-11	ELECT	3300µF	20%	10V
C16	1-124-585-11	ELECT	3300µF	20%	10V
C17	1-123-935-00	ELECT	33µF	20%	160V
C18	1-129-996-00	FILM	0.22µF	20%	630V
C19	1-124-585-11	ELECT	3300µF	20%	10V
C21	1-136-945-11	FILM	8.2µF	5%	200V
C22	1-136-945-11	FILM	8.2µF	5%	200V
C23	1-136-945-11	FILM	8.2µF	5%	200V
C24	1-136-945-11	FILM	8.2µF	5%	200V
C30	1-136-613-11	FILM	0.0068µF	3%	2KV
C31	1-106-391-12	MYLAR	0.1µF	10%	200V
C32	1-124-907-11	ELECT	10µF	20%	50V
C35	1-102-244-00	CERAMIC	220pF	10%	500V
C36	1-164-747-11	CERAMIC	330pF	15%	1.5KV
C37	1-164-747-11	CERAMIC	330pF	15%	1.5KV
C38	1-164-747-11	CERAMIC	330pF	15%	1.5KV
C101	1-102-973-00	CERAMIC	100pF	5%	50V
C102	1-136-159-00	FILM	0.033µF	5%	50V
C104	1-136-165-00	FILM	0.1µF	5%	50V
C105	1-136-165-00	FILM	0.1µF	5%	50V
C106	1-104-665-11	ELECT	100µF	20%	16V
C109	1-124-903-11	ELECT	1µF	20%	50V
C110	1-104-665-11	ELECT	100µF	20%	16V
C111	1-104-665-11	ELECT	100µF	20%	16V
C112	1-104-665-11	ELECT	100µF	20%	16V
C113	1-126-965-11	ELECT	22µF	20%	50V
C114	1-109-889-11	ELECT	1µF	20%	50V
C115	1-136-153-00	FILM	0.01µF	5%	50V
C116	1-137-366-11	FILM	0.0022µF	5%	50V
C117	1-102-973-00	CERAMIC	100pF	5%	50V
C118	1-136-165-00	FILM	0.1µF	5%	50V
C119	1-104-665-11	ELECT	100µF	20%	16V
C120	1-123-939-00	ELECT	10µF	20%	200V
C121	1-136-159-00	FILM	0.033µF	5%	50V
C122	1-123-024-21	ELECT	33µF	160V	
C123	1-123-024-21	ELECT	33µF	160V	
C124	1-125-499-11	ELECT(BLOCK)	220µF	20%	200V
C125	1-136-153-00	FILM	0.01µF	5%	50V
C126	1-137-364-11	FILM	0.001µF	5%	50V
C128	1-123-939-00	ELECT	10µF	20%	200V
C129	1-123-939-00	ELECT	10µF	20%	200V
C130	1-124-120-11	ELECT	220µF	20%	16V
C131	1-124-120-11	ELECT	220µF	20%	16V
C132	1-123-024-21	ELECT	33µF	160V	
C133	1-109-889-11	ELECT	1µF	20%	50V
C134	1-124-478-11	ELECT	100µF	20%	25V
C135	1-124-478-11	ELECT	100µF	20%	25V
C136	1-124-907-11	ELECT	10µF	20%	50V
C137	1-102-973-00	CERAMIC	100pF	5%	50V
C138	1-124-907-11	ELECT	10µF	20%	50V
C139	1-126-942-61	ELECT	1000µF	20%	25V
C140	1-136-169-00	FILM	0.22µF	5%	50V
C141	1-137-364-11	FILM	0.001µF	5%	50V
C142	1-125-499-11	ELECT(BLOCK)	220µF	20%	200V
C143	1-102-824-00	CERAMIC	470pF	5%	50V
C144	1-136-165-00	FILM	0.1µF	5%	50V
C145	1-136-153-00	FILM	0.01µF	5%	50V
C146	1-136-173-00	FILM	0.47µF	5%	50V
C147	1-136-173-00	FILM	0.47µF	5%	50V
C148	1-104-665-11	ELECT	100µF	20%	16V
C149	1-124-907-11	ELECT	10µF	20%	50V
C150	1-137-364-11	FILM	0.001µF	5%	50V
C151	1-124-903-11	ELECT	1µF	20%	50V
C152	1-136-165-00	FILM	0.1µF	5%	50V
C153	1-104-663-11	ELECT	33µF	20%	16V
C154	1-136-165-00	FILM	0.1µF	5%	50V
C155	1-136-153-00	FILM	0.01µF	5%	50V
C156	1-136-165-00	FILM	0.1µF	5%	50V
C157	1-136-157-00	FILM	0.022µF	5%	50V
C158	1-128-475-11	ELECT	10µF	160V	
C159	1-124-808-51	ELECT	10µF	20%	200V
C160	1-136-111-00	FILM	1µF	5%	200V
C161	1-124-903-11	ELECT	1µF	20%	50V
C162	1-136-111-00	FILM	1µF	5%	200V
C163	1-124-907-11	ELECT	10µF	20%	50V
C164	1-124-907-11	ELECT	10µF	20%	50V
C165	1-124-907-11	ELECT	10µF	20%	50V
C166	1-124-907-11	ELECT	10µF	20%	50V
C167	1-102-824-00	CERAMIC	470pF	5%	50V
C168	1-136-153-00	FILM	0.01µF	5%	50V
C169	1-107-721-11	ELECT	4.7µF	20%	50V
C170	1-104-663-11	ELECT	33µF	20%	16V
C171	1-136-165-00	FILM	0.1µF	5%	50V
C172	1-124-907-11	ELECT	10µF	20%	50V
C173	1-104-663-11	ELECT	33µF	20%	16V
C174	1-104-663-11	ELECT	33µF	20%	16V
C175	1-130-706-00	FILM	0.008µF	3%	1.6KV
C176	1-106-391-12	MYLAR	0.1µF	10%	200V
C177	1-124-907-11	ELECT	10µF	20%	50V
C178	1-101-004-00	CERAMIC	0.01µF	50V	
C180	1-136-165-00	FILM	0.1µF	5%	50V
C180	7-322-065-19	RUBBER, SILICON RTV (KE490W)			

<DIODE>

REF. NO.	PART NO.	DESCRIPTION	REMARK
D1	8-719-970-89	DIODE DD50R	
D7	8-719-908-20	DIODE ERC88-009	
D8	8-719-908-20	DIODE ERC88-009	
D9	8-719-979-58	DIODE EGP10D	
D10	8-719-979-58	DIODE EGP10D	
D11	8-719-901-19	DIODE V11N	
D12	8-719-979-58	DIODE EGP10D	
D13	8-719-945-81	DIODE ERC06-15SA	
D14	8-719-900-95	DIODE V09G	
D15	8-719-933-02	DIODE ERD33-02	
D103	8-719-911-19	DIODE 1SS119-25	
D104	8-719-911-19	DIODE 1SS119-25	
D105	8-719-948-45	DIODE ERA22-08	
D106	8-719-948-45	DIODE ERA22-08	
D107	8-719-911-19	DIODE 1SS119-25	
D109	8-719-948-45	DIODE ERA22-08	
D110	8-719-911-19	DIODE 1SS119-25	
D111	8-719-911-19	DIODE 1SS119-25	
D112	8-719-900-26	DIODE ERD29-08J	
D113	8-719-911-19	DIODE 1SS119-25	
D114	8-719-110-53	DIODE RD20ESB2	
D115	8-719-110-53	DIODE RD20ESB2	
D116	8-719-920-67	DIODE ERC91-02	
D117	8-719-911-19	DIODE 1SS119-25	
D118	8-719-948-45	DIODE ERA22-08	
D119	8-719-911-19	DIODE 1SS119-25	

E

REF. NO.	PART NO.	DESCRIPTION	REMARK
D120	8-719-911-19	DIODE 1SS119-25	
D121	8-719-911-19	DIODE 1SS119-25	
D122	8-719-911-19	DIODE 1SS119-25	
D123	8-719-911-19	DIODE 1SS119-25	
D124	8-719-948-45	DIODE ERA22-08	
D126	8-719-110-88	DIODE RD39ESB2	
D127	8-719-110-41	DIODE RD15ESB2	
D128	8-719-110-41	DIODE RD15ESB2	
D129	8-719-110-41	DIODE RD15ESB2	
D130	8-719-110-41	DIODE RD15ESB2	
D131	8-719-911-19	DIODE 1SS119-25	
D132	8-719-911-19	DIODE 1SS119-25	
D133	8-719-911-19	DIODE 1SS119-25	
D134	8-719-300-80	DIODE RU-1C	
D135	8-719-300-80	DIODE RU-1C	
D136	8-719-300-80	DIODE RU-1C	
D137	8-719-300-80	DIODE RU-1C	
D138	8-719-911-19	DIODE 1SS119-25	
D139	8-719-911-19	DIODE 1SS119-25	
D140	8-719-911-19	DIODE 1SS119-25	
D141	8-719-911-19	DIODE 1SS119-25	
D142	8-719-911-19	DIODE 1SS119-25	
D143	8-719-911-19	DIODE 1SS119-25	
D144	8-719-901-19	DIODE V11N	
D145	8-719-911-19	DIODE 1SS119-25	
D146	8-719-948-45	DIODE ERA22-08	
D149	8-719-911-19	DIODE 1SS119-25	
		<CONNECTOR>	
E-1	* 1-564-516-11	PLUG, CONNECTOR 13P	
E-2	* 1-564-514-11	PLUG, CONNECTOR 11P	
E-3	* 1-564-509-11	PLUG, CONNECTOR 6P	
E-4	* 1-580-798-11	CONNECTOR PIN (DY) 6P	
E-5	* 1-580-798-11	CONNECTOR PIN (DY) 6P	
E-6	* 1-580-798-11	CONNECTOR PIN (DY) 6P	
E-8	* 1-580-798-11	CONNECTOR PIN (DY) 6P	
E-9	* 1-580-798-11	CONNECTOR PIN (DY) 6P	
E-10	* 1-580-798-11	CONNECTOR PIN (DY) 6P	
E-11	1-508-742-00	PIN, CONNECTOR 3P	
E-13	1-508-786-00	PIN, CONNECTOR (5mm PITCH) 2P	
E-14	1-564-505-11	PLUG, CONNECTOR 2P	
		<FERRITE BEAD>	
FB1	1-410-396-41	FERRITE BEAD INDUCTOR 0.45µH	
FB2	1-410-396-41	FERRITE BEAD INDUCTOR 0.45µH	
FB3	1-410-396-41	FERRITE BEAD INDUCTOR 0.45µH	
FB4	1-410-396-41	FERRITE BEAD INDUCTOR 0.45µH	
FB5	1-410-396-41	FERRITE BEAD INDUCTOR 0.45µH	
FB6	1-410-396-41	FERRITE BEAD INDUCTOR 0.45µH	
FB7	1-410-396-41	FERRITE BEAD INDUCTOR 0.45µH	
		<IC>	
IC1	8-759-145-58	IC µPC4558C	
IC2	8-759-145-58	IC µPC4558C	
IC3	8-759-145-58	IC µPC4558C	
IC101	8-759-345-38	IC HD14538BP	
IC103	8-759-109-82	IC µPC814C	
IC104	8-759-145-58	IC µPC4558C	
IC105	8-759-145-58	IC µPC4558C	
IC106	8-759-145-58	IC µPC4558C	
IC107	8-759-014-95	IC MC1495L	
IC108	8-759-145-58	IC µPC4558C	
IC109	8-759-231-58	IC TA7812S	
IC110	8-759-929-65	IC LM7912CT	
IC111	8-759-100-75	IC µPC1394C	
IC112	8-759-145-58	IC µPC4558C	

REF. NO.	PART NO.	DESCRIPTION	REMARK
IC113	8-759-729-03	IC NJM2903D	
IC114	8-759-729-03	IC NJM2903D	
IC115	8-759-145-58	IC µPC4558C	
		<COIL>	
L100	1-459-483-00	COIL (WITH CORE)	
L102	1-459-155-00	COIL (WITH CORE) 45µH	
L103	1-459-155-00	COIL (WITH CORE) 45µH	
L104	1-459-155-00	COIL (WITH CORE) 45µH	
L106	1-459-483-00	COIL (WITH CORE)	
L107	1-410-093-11	INDUCTOR 33ÇçH	
L108	1-410-093-11	INDUCTOR 33ÇçH	
L109	1-459-104-00	COIL, DUST CORE	
L110	1-459-104-00	COIL, DUST CORE	
L111	1-410-093-11	INDUCTOR 33ÇçH	
L112	1-460-022-11	COIL, CHOKE 1.3ÇçH	
L113	1-410-680-31	INDUCTOR 330µH	
L114	1-410-686-11	INDUCTOR 1ÇçH	
L115	1-407-500-00	INDUCTOR 4.7ÇçH	
		<VARIABLE COIL>	
LV1	1-460-019-11	COIL, HORIZONTAL ADJUSTMENT	
LV2	1-460-019-11	COIL, HORIZONTAL ADJUSTMENT	
LV3	1-460-019-11	COIL, HORIZONTAL ADJUSTMENT	
		<TRANSISTOR>	
Q1	8-729-142-69	TRANSISTOR 2SK817	
Q2	8-729-142-68	TRANSISTOR 2SJ143	
Q3	8-729-142-69	TRANSISTOR 2SK817	
Q4	8-729-142-68	TRANSISTOR 2SJ143	
Q5	8-729-142-69	TRANSISTOR 2SK817	
Q6	8-729-142-68	TRANSISTOR 2SJ143	
Q7	8-729-820-71	TRANSISTOR 2SC3998CA	
Q21	8-729-802-07	TRANSISTOR 2SD1403-CA	
Q22	8-729-119-80	TRANSISTOR 2SC2688-LK	
Q101	8-729-105-74	TRANSISTOR 2SK523-M1	
Q102	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q103	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q104	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q106	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q107	8-729-140-96	TRANSISTOR 2SD774-34	
Q108	8-729-140-97	TRANSISTOR 2SB734-34	
Q109	8-729-105-74	TRANSISTOR 2SK523-M1	
Q110	8-729-143-42	TRANSISTOR 2SK929	
Q111	8-729-143-42	TRANSISTOR 2SK929	
Q112	8-729-142-68	TRANSISTOR 2SJ143	
Q113	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q115	8-729-926-42	TRANSISTOR XDC114ES	
Q116	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q117	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q118	8-729-105-74	TRANSISTOR 2SK523-M1	
Q120	8-729-802-71	TRANSISTOR 2SA1407-D	
Q121	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q127	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q128	8-729-926-42	TRANSISTOR XDC114ES	
Q129	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q130	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q131	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q132	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q133	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q134	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q135	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q136	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q137	8-729-119-80	TRANSISTOR 2SC2688-LK	
Q138	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q139	8-729-119-76	TRANSISTOR 2SA1175-HFE	

REF. NO.	PART NO.	DESCRIPTION				REMARK
Q140	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q141	8-729-119-78	TRANSISTOR 2SC2785-HFE				
Q142	8-729-143-42	TRANSISTOR 2SK929				
Q143	8-729-119-80	TRANSISTOR 2SC2688-LK				
Q144	8-729-905-86	TRANSISTOR 2SC4054N				
Q145	8-729-402-03	TRANSISTOR 2SK755				
Q146	8-729-119-80	TRANSISTOR 2SC2688-LK				
Q147	8-729-905-86	TRANSISTOR 2SC4054N				
Q148	8-729-802-71	TRANSISTOR 2SA1407-D				
		<RESISTOR>				
R1	1-216-393-00	METAL OXIDE	2.2	5%	3W	F
R2	1-216-393-00	METAL OXIDE	2.2	5%	3W	F
R3	1-216-393-00	METAL OXIDE	2.2	5%	3W	F
R4	1-249-417-11	CARBON	1K	5%	1/4W	
R5	1-215-445-00	METAL	10K	1%	1/4W	
R7	1-215-445-00	METAL	10K	1%	1/4W	
R8	1-215-445-00	METAL	10K	1%	1/4W	
R9	1-215-445-00	METAL	10K	1%	1/4W	
R10	1-249-417-11	CARBON	1K	5%	1/4W	
R11	1-214-824-11	METAL	22	1%	1/2W	
R12	1-214-824-11	METAL	22	1%	1/2W	
R13	1-214-824-11	METAL	22	1%	1/2W	
R14	1-249-417-11	CARBON	1K	5%	1/4W	
R15	1-215-445-00	METAL	10K	1%	1/4W	
R17	1-215-445-00	METAL	10K	1%	1/4W	
R18	1-215-445-00	METAL	10K	1%	1/4W	
R19	1-215-445-00	METAL	10K	1%	1/4W	
R20	1-249-417-11	CARBON	1K	5%	1/4W	
R21	1-214-832-00	METAL	47	1%	1/2W	
R22	1-214-832-00	METAL	47	1%	1/2W	
R23	1-214-832-00	METAL	47	1%	1/2W	
R24	1-249-417-11	CARBON	1K	5%	1/4W	
R25	1-215-445-00	METAL	10K	1%	1/4W	
R27	1-215-445-00	METAL	10K	1%	1/4W	
R28	1-215-445-00	METAL	10K	1%	1/4W	
R29	1-215-445-00	METAL	10K	1%	1/4W	
R30	1-249-417-11	CARBON	1K	5%	1/4W	
R31	1-214-824-11	METAL	22	1%	1/2W	
R32	1-214-824-11	METAL	22	1%	1/2W	
R33	1-214-824-11	METAL	22	1%	1/2W	
R34	1-214-824-11	METAL	22	1%	1/2W	
R35	1-214-824-11	METAL	22	1%	1/2W	
R36	1-214-824-11	METAL	22	1%	1/2W	
R37	1-214-832-00	METAL	47	1%	1/2W	
R38	1-214-832-00	METAL	47	1%	1/2W	
R39	1-214-832-00	METAL	47	1%	1/2W	
R40	1-214-824-11	METAL	22	1%	1/2W	
R41	1-214-824-11	METAL	22	1%	1/2W	
R42	1-214-824-11	METAL	22	1%	1/2W	
R51	1-249-479-11	CARBON	2.7	5%	1/2W	F
R52	1-249-479-11	CARBON	2.7	5%	1/2W	F
R53	1-249-479-11	CARBON	2.7	5%	1/2W	F
R54	1-215-857-11	METAL OXIDE	10	5%	1W	F
R55	1-215-924-00	METAL OXIDE	15K	5%	3W	F
R56	1-247-716-11	CARBON	1.8K	5%	1/4W	F
R57	1-247-807-31	CARBON	100	5%	1/4W	
R58	1-247-807-31	CARBON	100	5%	1/4W	
R59	1-247-807-31	CARBON	100	5%	1/4W	
R60	1-247-807-31	CARBON	100	5%	1/4W	
R61	1-247-807-31	CARBON	100	5%	1/4W	
R62	1-247-807-31	CARBON	100	5%	1/4W	
R63	1-247-712-11	CARBON	820	5%	1/4W	F
R64	1-247-712-11	CARBON	820	5%	1/4W	F
R65	1-247-712-11	CARBON	820	5%	1/4W	F
R66	1-215-905-11	METAL OXIDE	10	5%	3W	F
R67	1-216-397-11	METAL OXIDE	4.7	5%	3W	F
R68	1-216-397-11	METAL OXIDE	4.7	5%	3W	F
R69	1-216-397-11	METAL OXIDE	4.7	5%	3W	F
R101	1-215-457-00	METAL	33K	1%	1/4W	
R102	1-249-429-11	CARBON	10K	5%	1/4W	
R103	1-249-429-11	CARBON	10K	5%	1/4W	
R109	1-249-429-11	CARBON	10K	5%	1/4W	
R110	1-249-417-11	CARBON	1K	5%	1/4W	
R111	1-249-429-11	CARBON	10K	5%	1/4W	
R112	1-249-425-11	CARBON	4.7K	5%	1/4W	
R113	1-247-807-31	CARBON	100	5%	1/4W	
R114	1-249-417-11	CARBON	1K	5%	1/4W	
R115	1-215-445-00	METAL	10K	1%	1/4W	
R116	1-215-445-00	METAL	10K	1%	1/4W	
R117	1-215-433-00	METAL	3.3K	1%	1/4W	
R118	1-249-423-11	CARBON	3.3K	5%	1/4W	
R119	1-215-457-00	METAL	33K	1%	1/4W	
R120	1-215-457-00	METAL	33K	1%	1/4W	
R121	1-215-445-00	METAL	10K	1%	1/4W	
R122	1-249-425-11	CARBON	4.7K	5%	1/4W	
R123	1-215-445-00	METAL	10K	1%	1/4W	
R124	1-215-445-00	METAL	10K	1%	1/4W	
R125	1-215-457-00	METAL	33K	1%	1/4W	
R126	1-215-457-00	METAL	33K	1%	1/4W	
R127	1-215-447-00	METAL	12K	1%	1/4W	
R128	1-215-445-00	METAL	10K	1%	1/4W	
R129	1-215-447-00	METAL	12K	1%	1/4W	
R130	1-249-425-11	CARBON	4.7K	5%	1/4W	
R131	1-215-445-00	METAL	10K	1%	1/4W	
R132	1-215-449-00	METAL	15K	1%	1/4W	
R133	1-249-425-11	CARBON	4.7K	5%	1/4W	
R134	1-215-453-00	METAL	22K	1%	1/4W	
R135	1-249-429-11	CARBON	10K	5%	1/4W	
R136	1-249-423-11	CARBON	3.3K	5%	1/4W	
R137	1-249-423-11	CARBON	3.3K	5%	1/4W	
R138	1-249-423-11	CARBON	3.3K	5%	1/4W	
R139	1-249-425-11	CARBON	4.7K	5%	1/4W	
R140	1-249-417-11	CARBON	1K	5%	1/4W	
R141	1-249-421-11	CARBON	2.2K	5%	1/4W	
R142	1-249-421-11	CARBON	2.2K	5%	1/4W	
R143	1-249-420-11	CARBON	1.8K	5%	1/4W	
R144	1-249-421-11	CARBON	2.2K	5%	1/4W	
R145	1-249-423-11	CARBON	3.3K	5%	1/4W	
R146	1-249-435-11	CARBON	33K	5%	1/4W	
R147	1-249-421-11	CARBON	2.2K	5%	1/4W	
R148	1-249-440-11	CARBON	82K	5%	1/4W	
R149	1-249-417-11	CARBON	1K	5%	1/4W	
R150	1-215-461-00	METAL	47K	1%	1/4W	
R151	1-249-425-11	CARBON	4.7K	5%	1/4W	
R152	1-215-445-00	METAL	10K	1%	1/4W	
R153	1-215-445-00	METAL	10K	1%	1/4W	
R154	1-247-895-91	CARBON	470K	5%	1/4W	
R155	1-249-420-11	CARBON	1.8K	5%	1/4W	
R156	1-249-437-11	CARBON	47K	5%	1/4W	
R157	1-249-413-11	CARBON	470	5%	1/4W	
R158	1-247-807-31	CARBON	100	5%	1/4W	
R159	1-247-807-31	CARBON	100	5%	1/4W	
R160	1-249-417-11	CARBON	1K	5%	1/4W	
R161	1-215-467-00	METAL	82K	1%	1/4W	
R162	1-215-866-11	METAL OXIDE	330	5%	1W	F
R163	1-215-461-00	METAL	47K	1%	1/4W	
R164	1-249-421-11	CARBON	2.2K	5%	1/4W	
R165	1-215-445-00	METAL	10K	1%	1/4W	
R166	1-249-429-11	CARBON	10K	5%	1/4W	
R167	1-249-437-11	CARBON	47K	5%	1/4W	
R168	1-249-429-11	CARBON	10K	5%	1/4W	
R169	1-247-725-11	CARBON	10K	5%	1/4W	F
R170	1-249-425-11	CARBON	4.7K	5%	1/4W	
R171	1-249-417-11	CARBON	1K	5%	1/4W	
R172	1-249-417-11	CARBON	1K	5%	1/4W	

E **DA**

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

The componants identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

REF. NO.	PART NO.	DESCRIPTION			REMARK	
R173	1-216-389-11	METAL OXIDE	1	5%	3W	F
R174	1-216-388-11	METAL OXIDE	0.82	5%	3W	F
R176	1-249-923-11	CARBON	1K	5%	1/4W	F
R177	1-215-445-00	METAL	10K	1%	1/4W	
R178	1-249-417-11	CARBON	1K	5%	1/4W	
R179	1-249-429-11	CARBON	10K	5%	1/4W	
R180	1-215-433-00	METAL	3.3K	1%	1/4W	
R181	1-249-441-11	CARBON	100K	5%	1/4W	
R182	1-249-421-11	CARBON	2.2K	5%	1/4W	
R183	1-247-807-31	CARBON	100	5%	1/4W	
R184	1-249-425-11	CARBON	4.7K	5%	1/4W	
R186	1-249-437-11	CARBON	47K	5%	1/4W	
R187	1-215-461-00	METAL	47K	1%	1/4W	
R191	1-249-423-11	CARBON	3.3K	5%	1/4W	
R192	1-247-863-91	CARBON	22K	5%	1/4W	
R193	1-247-903-00	CARBON	1M	5%	1/4W	
R194	1-249-423-11	CARBON	3.3K	5%	1/4W	
R195	1-249-423-11	CARBON	3.3K	5%	1/4W	
R196	1-247-883-00	CARBON	150K	5%	1/4W	
R197	1-247-807-31	CARBON	100	5%	1/4W	
R198	1-215-447-00	METAL	12K	1%	1/4W	
R199	1-249-423-11	CARBON	3.3K	5%	1/4W	
R201	1-249-417-11	CARBON	1K	5%	1/4W	
R202	1-249-417-11	CARBON	1K	5%	1/4W	
R203	1-249-453-11	CARBON	3.3	5%	1/4W	F
R204	1-249-429-11	CARBON	10K	5%	1/4W	
R205	1-249-427-11	CARBON	6.8K	5%	1/4W	
R206	1-249-429-11	CARBON	10K	5%	1/4W	
R207	1-249-441-11	CARBON	100K	5%	1/4W	
R208	1-216-341-11	METAL OXIDE	0.22	5%	1W	F
R209	1-249-417-11	CARBON	1K	5%	1/4W	
R210	1-215-451-00	METAL	18K	1%	1/4W	
R212	1-249-431-11	CARBON	15K	5%	1/4W	
R213	1-249-429-11	CARBON	10K	5%	1/4W	
R214	1-215-883-11	METAL OXIDE	33	5%	2W	F
R215	1-249-417-11	CARBON	1K	5%	1/4W	
R216	1-249-423-11	CARBON	3.3K	5%	1/4W	
R217	1-249-399-11	CARBON	33	5%	1/4W	
R218	1-249-417-11	CARBON	1K	5%	1/4W	F
R219	1-215-445-00	METAL	10K	1%	1/4W	
R220	1-215-445-00	METAL	10K	1%	1/4W	
R221	1-249-476-11	CARBON	1.5	5%	1/2W	F
R222	1-249-441-11	CARBON	100K	5%	1/4W	
R223	1-249-429-11	CARBON	10K	5%	1/4W	
R224	1-249-429-11	CARBON	10K	5%	1/4W	
R225	1-249-421-11	CARBON	2.2K	5%	1/4W	
R226	1-215-445-00	METAL	10K	1%	1/4W	
R227	1-249-429-11	CARBON	10K	5%	1/4W	
R228	1-249-429-11	CARBON	10K	5%	1/4W	
R229	1-249-429-11	CARBON	10K	5%	1/4W	
R230	1-249-443-11	CARBON	0.47	5%	1/4W	F
R231	1-249-443-11	CARBON	0.47	5%	1/4W	F
R232	1-249-437-11	CARBON	47K	5%	1/4W	
R233	1-249-417-11	CARBON	1K	5%	1/4W	
R234	1-249-417-11	CARBON	1K	5%	1/4W	
R235	1-249-437-11	CARBON	47K	5%	1/4W	
R236	1-249-437-11	CARBON	47K	5%	1/4W	
R237	1-249-441-11	CARBON	100K	5%	1/4W	
R238	1-249-399-11	CARBON	33	5%	1/4W	
R239	1-249-423-11	CARBON	3.3K	5%	1/4W	
R240	1-249-441-11	CARBON	100K	5%	1/4W	
R241	1-249-437-11	CARBON	47K	5%	1/4W	
R242	1-215-461-00	METAL	47K	1%	1/4W	
R243	1-215-469-00	METAL	100K	1%	1/4W	
R244	1-249-423-11	CARBON	3.3K	5%	1/4W	
R245	1-216-441-00	METAL OXIDE	27K	5%	1W	F
R246	1-215-435-00	METAL	3.9K	1%	1/4W	
R247	1-249-421-11	CARBON	2.2K	5%	1/4W	
R248	1-249-425-11	CARBON	4.7K	5%	1/4W	

REF. NO.	PART NO.	DESCRIPTION			REMARK	
R249	1-215-421-00	METAL	1K	1%	1/4W	
R250	1-215-445-00	METAL	10K	1%	1/4W	
R251	1-247-887-00	CARBON	220K	5%	1/4W	
R252	1-249-429-11	CARBON	10K	5%	1/4W	
R254	1-247-807-31	CARBON	100	5%	1/4W	
R255	1-249-417-11	CARBON	1K	5%	1/4W	
R256	1-249-441-11	CARBON	100K	5%	1/4W	
R257	1-249-437-11	CARBON	47K	5%	1/4W	
R258	1-215-435-00	METAL	3.9K	1%	1/4W	
R259	1-215-439-00	METAL	5.6K	1%	1/4W	
R260	1-215-445-00	METAL	10K	1%	1/4W	
R261	1-249-429-11	CARBON	10K	5%	1/4W	
R262	1-247-807-31	CARBON	100	5%	1/4W	
R263	1-215-878-00	METAL OXIDE	33K	5%	1W	F
R264	1-249-429-11	CARBON	10K	5%	1/4W	
R265	1-247-807-31	CARBON	100	5%	1/4W	
R266	1-249-441-11	CARBON	100K	5%	1/4W	
R267	1-215-379-00	METAL	18	1%	1/4W	
R268	1-215-379-00	METAL	18	1%	1/4W	
R269	1-215-421-00	METAL	1K	1%	1/4W	
R270	1-215-421-00	METAL	1K	1%	1/4W	
R271	1-215-924-00	METAL OXIDE	15K	5%	3W	F
R272	1-249-453-11	CARBON	3.3	5%	1/4W	F
R273	1-249-429-11	CARBON	10K	5%	1/4W	
R274	1-249-429-11	CARBON	10K	5%	1/4W	
R275	1-249-429-11	CARBON	10K	5%	1/4W	
R276	1-249-429-11	CARBON	10K	5%	1/4W	
R281	1-249-451-11	CARBON	2.2	5%	1/4W	F
R282	1-249-451-11	CARBON	2.2	5%	1/4W	F
R283	1-249-425-11	CARBON	4.7K	5%	1/4W	
R284	1-215-467-00	METAL	82K	1%	1/4W	
R285	1-215-445-00	METAL	10K	1%	1/4W	
R286	1-215-911-11	METAL OXIDE	100	5%	3W	F
R287	1-202-727-00	SOLID	4.7M	10%	1/2W	
R288	1-202-727-00	SOLID	4.7M	10%	1/2W	
R289	1-202-727-00	SOLID	4.7M	10%	1/2W	
R290	1-202-727-00	SOLID	4.7M	10%	1/2W	
R291	1-215-429-00	METAL	2.2K	1%	1/4W	
R292	1-215-429-00	METAL	2.2K	1%	1/4W	
R293	1-249-417-11	CARBON	1K	5%	1/4W	
R294	1-215-429-00	METAL	2.2K	1%	1/4W	
R295	1-215-429-00	METAL	2.2K	1%	1/4W	
R296	1-249-429-11	CARBON	10K	5%	1/4W	
R297	1-215-453-00	METAL	22K	1%	1/4W	
R298	1-249-417-11	CARBON	1K	5%	1/4W	

<VARIABLE RESISTOR>

RV101	1-228-997-00	RES, ADJ, CARBON 100K
RV104	1-228-997-00	RES, ADJ, CARBON 100K

<TRANSFORMER>

T2	⚠1-439-479-11	TRANSFORMER, LINE OUTPUT
T3	1-437-078-00	TRANSFORMER, HORIZONTAL DRIVE
T102	⚠1-439-480-11	TRANSFORMER, HORIZONTAL OUTPUT
T103	1-437-144-11	TRANSFORMER, FERRITE (HDT)
T104	1-437-144-11	TRANSFORMER, FERRITE (HDT)
T105	1-424-290-11	TRANSFORMER, DRIVE

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* A-1346-229-A	DA BOARD, COMPLETE

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4-382-854-11	SCREW (M3X10), P, SW (+)
* 7-322-065-72	RUBBER, RTV (SE-9168) (130G)

REF. NO.	PART NO.	DESCRIPTION			REMARK
		<CAPACITOR>			
C1	1-124-122-11	ELECT	100µF	20%	50V
C2	1-104-665-11	ELECT	100µF	20%	16V
C3	1-124-122-11	ELECT	100µF	20%	50V
C4	1-104-665-11	ELECT	100µF	20%	16V
C5	1-163-251-11	CERAMIC CHIP	100pF	5%	50V
C6	1-163-125-00	CERAMIC CHIP	220pF	5%	50V
C7	1-163-251-11	CERAMIC CHIP	100pF	5%	50V
C8	1-124-903-11	ELECT	1µF	20%	50V
C9	1-136-153-00	FILM	0.01µF	5%	50V
C10	1-124-903-11	ELECT	1µF	20%	50V
C11	1-163-251-11	CERAMIC CHIP	100pF	5%	50V
C12	1-124-903-11	ELECT	1µF	20%	50V
C13	1-136-153-00	FILM	0.01µF	5%	50V
C14	1-124-907-11	ELECT	10µF	20%	50V
C15	1-163-243-11	CERAMIC CHIP	47pF	5%	50V
C16	1-163-243-11	CERAMIC CHIP	47pF	5%	50V
C17	1-136-165-00	FILM	0.1µF	5%	50V
C18	1-163-235-11	CERAMIC CHIP	22pF	5%	50V
C19	1-124-903-11	ELECT	1µF	20%	50V
C20	1-136-153-00	FILM	0.01µF	5%	50V
C21	1-124-903-11	ELECT	1µF	20%	50V
C22	1-126-961-11	ELECT	2.2µF	20%	50V
C23	1-124-907-11	ELECT	10µF	20%	50V
C24	1-124-907-11	ELECT	10µF	20%	50V
C25	1-163-243-11	CERAMIC CHIP	47pF	5%	50V
C26	1-124-903-11	ELECT	1µF	20%	50V
C27	1-136-153-00	FILM	0.01µF	5%	50V
C28	1-124-903-11	ELECT	1µF	20%	50V
C29	1-126-961-11	ELECT	2.2µF	20%	50V
C30	1-124-907-11	ELECT	10µF	20%	50V
C31	1-124-907-11	ELECT	10µF	20%	50V
C32	1-124-907-11	ELECT	10µF	20%	50V
C33	1-163-251-11	CERAMIC CHIP	100pF	5%	50V
C34	1-126-963-11	ELECT	4.7µF	20%	50V
C35	1-163-251-11	CERAMIC CHIP	100pF	5%	50V
C36	1-137-364-11	FILM	0.001µF	5%	50V
C37	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C38	1-126-961-11	ELECT	2.2µF	20%	50V
C39	1-124-907-11	ELECT	10µF	20%	50V
C40	1-104-665-11	ELECT	100µF	20%	16V
C41	1-136-153-00	FILM	0.01µF	5%	50V
C42	1-126-963-11	ELECT	4.7µF	20%	50V
C43	1-124-907-11	ELECT	10µF	20%	50V
C44	1-104-665-11	ELECT	100µF	20%	16V
C45	1-136-153-00	FILM	0.01µF	5%	50V
C46	1-163-251-11	CERAMIC CHIP	100pF	5%	50V
C48	1-126-963-11	ELECT	4.7µF	20%	50V
C49	1-104-665-11	ELECT	100µF	20%	16V
C50	1-136-153-00	FILM	0.01µF	5%	50V
C51	1-163-235-11	CERAMIC CHIP	22pF	5%	50V
C52	1-137-364-11	FILM	0.001µF	5%	50V
C53	1-126-961-11	ELECT	2.2µF	20%	50V
C54	1-124-120-11	ELECT	220µF	20%	16V
C55	1-163-125-00	CERAMIC CHIP	220pF	5%	50V
C56	1-163-253-11	CERAMIC CHIP	120pF	5%	50V
C57	1-126-961-11	ELECT	2.2µF	20%	50V
C58	1-126-961-11	ELECT	2.2µF	20%	50V
C59	1-126-961-11	ELECT	2.2µF	20%	50V
C60	1-126-963-11	ELECT	4.7µF	20%	50V
C61	1-126-966-11	ELECT	33µF	20%	50V
C62	1-126-965-11	ELECT	22µF	20%	50V
C63	1-126-961-11	ELECT	2.2µF	20%	50V
C64	1-124-119-00	ELECT	330µF	20%	16V
C65	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C66	1-130-471-00	FILM	0.001µF	5%	50V
C67	1-130-471-00	FILM	0.001µF	5%	50V
C68	1-126-963-11	ELECT	4.7µF	20%	50V
C69	1-137-366-11	FILM	0.0022µF	5%	50V
C70	1-137-368-11	FILM	0.0047µF	5%	50V
C71	1-124-910-11	ELECT	47µF	20%	50V
C72	1-124-907-11	ELECT	10µF	20%	50V
C73	1-136-165-00	FILM	0.1µF	5%	50V
C75	1-124-903-11	ELECT	1µF	20%	50V
C76	1-124-907-11	ELECT	10µF	20%	50V
C77	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C78	1-124-907-11	ELECT	10µF	20%	50V
C79	1-124-907-11	ELECT	10µF	20%	50V
C80	1-124-907-11	ELECT	10µF	20%	50V
C81	1-124-907-11	ELECT	10µF	20%	50V
C82	1-124-907-11	ELECT	10µF	20%	50V
C83	1-124-907-11	ELECT	10µF	20%	50V
C84	1-136-173-00	FILM	0.47µF	5%	50V
C201	1-124-907-11	ELECT	10µF	20%	50V
C202	1-136-155-00	FILM	0.015µF	5%	50V
C203	1-136-159-00	FILM	0.033µF	5%	50V
C204	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C205	1-136-165-00	FILM	0.1µF	5%	50V
C207	1-126-963-11	ELECT	4.7µF	20%	50V
C208	1-124-903-11	ELECT	1µF	20%	50V
C209	1-136-161-00	FILM	0.047µF	5%	50V
C213	1-124-042-51	ELECT	0.47µF	20%	50V
C214	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C215	1-124-910-11	ELECT	47µF	20%	50V
C216	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C217	1-124-907-11	ELECT	10µF	20%	50V
C218	1-124-907-11	ELECT	10µF	20%	50V
C219	1-124-907-11	ELECT	10µF	20%	50V
C220	1-124-907-11	ELECT	10µF	20%	50V
C221	1-136-153-00	FILM	0.01µF	5%	50V
C222	1-163-125-00	CERAMIC CHIP	220pF	5%	50V
C223	1-126-163-11	ELECT	4.7µF	20%	50V
C301	1-126-965-11	ELECT	22µF	20%	50V
C401	1-163-251-11	CERAMIC CHIP	100pF	5%	50V
C402	1-163-251-11	CERAMIC CHIP	100pF	5%	50V
C403	1-126-963-11	ELECT	4.7µF	20%	50V
C404	1-126-963-11	ELECT	4.7µF	20%	50V
C405	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C601	1-124-907-11	ELECT	10µF	20%	50V
C602	1-124-907-11	ELECT	10µF	20%	50V
C603	1-124-907-11	ELECT	10µF	20%	50V
C701	1-126-961-11	ELECT	2.2µF	20%	50V
C702	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C703	1-126-961-11	ELECT	2.2µF	20%	50V
C704	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C801	1-124-122-11	ELECT	100µF	20%	50V
C802	1-104-665-11	ELECT	100µF	20%	16V
C803	1-124-122-11	ELECT	100µF	20%	50V
C804	1-104-665-11	ELECT	100µF	20%	16V
		<CONNECTOR>			
CN171	* 1-766-305-11	PIN, PC CONNECTOR 96P			
		<DIODE>			
D1	8-719-900-95	DIODE V09G			
D2	8-719-900-95	DIODE V09G			
D3	8-719-106-71	DIODE RD12M-B2			
D4	8-719-801-78	DIODE 1SS184			
D5	8-719-105-82	DIODE RD5.1M-B2			
D6	8-719-801-78	DIODE 1SS184			
D7	8-719-801-78	DIODE 1SS184			
D8	8-719-104-34	DIODE 1S2836			
D9	8-719-948-45	DIODE ERA22-08			
D10	8-719-801-78	DIODE 1SS184			

DA

REF. NO.	PART NO.	DESCRIPTION	REMARK
D11	8-719-801-78	DIODE 1SS184	
D13	8-719-801-78	DIODE 1SS184	
D15	8-719-801-78	DIODE 1SS184	
D16	8-719-801-78	DIODE 1SS184	
D201	8-719-801-78	DIODE 1SS184	
D401	8-719-801-78	DIODE 1SS184	
D402	8-719-801-78	DIODE 1SS184	
D602	8-719-801-78	DIODE 1SS184	
D701	8-719-801-78	DIODE 1SS184	
D801	8-719-900-95	DIODE V09G	
D802	8-719-900-95	DIODE V09G	

<IC>

REF. NO.	PART NO.	DESCRIPTION	REMARK
IC1	8-759-231-58	IC TA7812S	
IC2	8-759-700-69	IC NJM79L12A	
IC3	8-759-300-78	IC HD14538BFP	
IC4	8-759-100-96	IC μPC4558G2	
IC5	8-759-300-78	IC HD14538BFP	
IC6	8-759-100-96	IC μPC4558G2	
IC7	8-759-100-93	IC μPC393G2	
IC8	8-759-300-78	IC HD14538BFP	
IC9	8-759-114-06	IC μPC814G2-1	
IC10	8-759-300-78	IC HD14538BFP	
IC11	8-759-100-93	IC μPC393G2	
IC12	8-759-300-71	IC HD14053BFP	
IC13	8-759-300-78	IC HD14538BFP	
IC14	8-759-100-93	IC μPC393G2	
IC15	8-749-922-79	IC MC-8638	
IC16	8-749-010-15	IC MC-8639A	
IC18	8-759-114-06	IC μPC814G2-1	
IC20	8-759-114-06	IC μPC814G2-1	
IC21	8-759-114-06	IC μPC814G2-1	
IC22	8-759-100-60	IC μPC1377C	
IC201	8-752-065-79	IC CXA1470AM-T6	
IC202	8-759-925-74	IC SN74HC04ANS	
IC203	8-759-114-06	IC μPC814G2-1	
IC204	8-759-100-96	IC μPC4558G2	
IC205	8-759-114-06	IC μPC814G2-1	
IC206	8-759-114-06	IC μPC814G2-1	
IC207	8-759-100-96	IC μPC4558G2	
IC210	8-752-068-37	IC CXA1726AM	
IC401	8-759-114-06	IC μPC814G2-1	
IC402	8-759-926-11	IC SN74HC138ANS	
IC601	8-759-100-96	IC μPC4558G2	
IC701	8-759-114-06	IC μPC814G2-1	
IC801	8-759-144-82	IC μPC2405HF	
IC802	8-759-247-67	IC LM2990T-5.0	

<COIL>

REF. NO.	PART NO.	DESCRIPTION	REMARK
L1	1-459-155-00	COIL (WITH CORE) 45μH	
L2	1-459-155-00	COIL (WITH CORE) 45μH	
L801	1-459-155-00	COIL (WITH CORE) 45μH	
L802	1-459-155-00	COIL (WITH CORE) 45μH	

<TRANSISTOR>

REF. NO.	PART NO.	DESCRIPTION	REMARK
Q1	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q2	8-729-216-22	TRANSISTOR 2SA1162-G	
Q3	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q4	8-729-216-22	TRANSISTOR 2SA1162-G	
Q5	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q6	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q7	8-729-216-22	TRANSISTOR 2SA1162-G	
Q8	8-729-216-22	TRANSISTOR 2SA1162-G	
Q9	8-729-105-74	TRANSISTOR 2SK523-M1	
Q10	8-729-216-22	TRANSISTOR 2SA1162-G	
Q11	8-729-216-22	TRANSISTOR 2SA1162-G	
Q12	8-729-216-22	TRANSISTOR 2SA1162-G	
Q13	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q14	8-729-901-01	TRANSISTOR DTC144EK	
Q15	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q16	8-729-926-23	TRANSISTOR FMW5	
Q17	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q18	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q19	8-729-904-04	TRANSISTOR FMS2	
Q20	8-729-926-23	TRANSISTOR FMW5	
Q21	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q22	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q201	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q202	8-729-216-22	TRANSISTOR 2SA1162-G	
Q203	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q204	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q205	8-729-926-23	TRANSISTOR FMW5	
Q206	8-729-216-22	TRANSISTOR 2SA1162-G	
Q207	8-729-902-96	TRANSISTOR FMS1	
Q208	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q209	8-729-926-23	TRANSISTOR FMW5	
Q210	8-729-216-22	TRANSISTOR 2SA1162-G	
Q211	8-729-902-96	TRANSISTOR FMS1	
Q212	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q213	8-729-926-23	TRANSISTOR FMW5	
Q214	8-729-216-22	TRANSISTOR 2SA1162-G	
Q215	8-729-902-96	TRANSISTOR FMS1	
Q216	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q217	8-729-902-96	TRANSISTOR FMS1	
Q218	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q219	8-729-926-23	TRANSISTOR FMW5	
Q220	8-729-216-22	TRANSISTOR 2SA1162-G	
Q221	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q222	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q223	8-729-902-96	TRANSISTOR FMS1	
Q224	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q401	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q402	8-729-216-22	TRANSISTOR 2SA1162-G	
Q601	8-729-926-23	TRANSISTOR FMW5	
Q602	8-729-903-82	TRANSISTOR FMW2	
Q603	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q701	8-729-903-82	TRANSISTOR FMW2	
Q702	8-729-920-59	TRANSISTOR IMX2	
Q703	8-729-904-04	TRANSISTOR FMS2	
Q704	8-729-926-23	TRANSISTOR FMW5	
Q705	8-729-926-23	TRANSISTOR FMW5	
Q706	8-729-920-59	TRANSISTOR IMX2	
Q707	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q708	8-729-216-22	TRANSISTOR 2SA1162-G	
Q709	8-729-904-04	TRANSISTOR FMS2	
Q803	8-729-901-01	TRANSISTOR DTC144EK	

<RESISTOR>

REF. NO.	PART NO.	DESCRIPTION				REMARK
R1	1-216-049-91	METAL GLAZE	1K	5%	1/10W	
R2	1-216-051-00	METAL GLAZE	1.2K	5%	1/10W	
R3	1-216-049-91	METAL GLAZE	1K	5%	1/10W	
R4	1-216-049-91	METAL GLAZE	1K	5%	1/10W	
R5	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W	
R6	1-208-812-11	METAL CHIP	18K	0.50%	1/10W	
R7	1-216-077-00	METAL GLAZE	15K	5%	1/10W	
R8	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R9	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R10	1-216-109-00	METAL GLAZE	330K	5%	1/10W	
R11	1-216-093-00	METAL GLAZE	68K	5%	1/10W	
R12	1-216-073-00	METAL GLAZE	10K	5%	1/10W	
R13	1-216-699-11	METAL CHIP	100K	0.50%	1/10W	
R14	1-216-099-00	METAL GLAZE	120K	5%	1/10W	
R15	1-216-049-91	METAL GLAZE	1K	5%	1/10W	

REF. NO.	PART NO.	DESCRIPTION			REMARK
R16	1-216-077-00	METAL GLAZE	15K	5%	1/10W
R17	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R18	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R19	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R20	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R21	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R22	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R23	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R24	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R25	1-216-025-91	METAL GLAZE	100	5%	1/10W
R26	1-216-085-00	METAL GLAZE	33K	5%	1/10W
R27	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R28	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R29	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R30	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R31	1-216-099-00	METAL GLAZE	120K	5%	1/10W
R32	1-216-105-91	METAL GLAZE	220K	5%	1/10W
R33	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R34	1-216-077-00	METAL GLAZE	15K	5%	1/10W
R35	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R36	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R37	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R38	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R39	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R40	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R41	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R42	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R43	1-216-077-00	METAL GLAZE	15K	5%	1/10W
R44	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R45	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R46	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R47	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R48	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R49	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R50	1-208-806-11	METAL CHIP	10K	0.50%	1/10W
R51	1-208-810-11	METAL CHIP	15K	0.50%	1/10W
R52	1-216-687-11	METAL CHIP	33K	0.50%	1/10W
R53	1-216-661-11	METAL CHIP	2.7K	0.50%	1/10W
R54	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R55	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R56	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R57	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R58	1-208-810-11	METAL CHIP	15K	0.50%	1/10W
R59	1-208-822-11	METAL CHIP	47K	0.50%	1/10W
R60	1-216-657-11	METAL CHIP	1.8K	0.50%	1/10W
R61	1-208-806-11	METAL CHIP	10K	0.50%	1/10W
R62	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R63	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R64	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R65	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R66	1-216-025-91	METAL GLAZE	100	5%	1/10W
R67	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R68	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R69	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R70	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R71	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R72	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R73	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R74	1-216-101-00	METAL GLAZE	150K	5%	1/10W
R75	1-216-095-00	METAL GLAZE	82K	5%	1/10W
R76	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R77	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R78	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R79	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R80	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R81	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R82	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R83	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R84	1-216-097-91	METAL GLAZE	100K	5%	1/10W

REF. NO.	PART NO.	DESCRIPTION			REMARK
R85	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R86	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R87	1-216-075-00	METAL GLAZE	12K	5%	1/10W
R88	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R89	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R90	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R91	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R92	1-216-661-11	METAL CHIP	2.7K	0.50%	1/10W
R93	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R94	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R95	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R96	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R97	1-216-101-00	METAL GLAZE	150K	5%	1/10W
R98	1-216-091-00	METAL GLAZE	56K	5%	1/10W
R99	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R100	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R101	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R102	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R103	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R104	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R105	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R106	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R107	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R108	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R109	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R110	1-216-673-11	METAL CHIP	8.2K	0.50%	1/10W
R111	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R112	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R113	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R114	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R115	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R116	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R117	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R118	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R119	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R120	1-216-635-11	METAL CHIP	220	0.50%	1/10W
R121	1-216-101-00	METAL GLAZE	150K	5%	1/10W
R122	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R123	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R124	1-216-635-11	METAL CHIP	220	0.50%	1/10W
R125	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R126	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R127	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R128	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R129	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R130	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R132	1-216-025-91	METAL GLAZE	100	5%	1/10W
R133	1-216-025-91	METAL GLAZE	100	5%	1/10W
R134	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R135	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R136	1-216-635-11	METAL CHIP	220	0.50%	1/10W
R137	1-216-035-00	METAL GLAZE	270	5%	1/10W
R138	1-216-063-91	METAL GLAZE	3.9K	5%	1/10W
R139	1-216-699-11	METAL CHIP	100K	0.50%	1/10W
R140	1-208-806-11	METAL CHIP	10K	0.50%	1/10W
R141	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R142	1-216-047-91	METAL GLAZE	820	5%	1/10W
R143	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R144	1-216-677-11	METAL CHIP	12K	0.50%	1/10W
R145	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R146	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R147	1-216-685-11	METAL CHIP	27K	0.50%	1/10W
R148	1-208-806-11	METAL CHIP	10K	0.50%	1/10W
R149	1-208-806-11	METAL CHIP	10K	0.50%	1/10W
R150	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R151	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R152	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R153	1-216-081-00	METAL GLAZE	22K	5%	1/10W

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REF. NO.	PART NO.	DESCRIPTION			REMARK
R154	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R155	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R156	1-208-812-11	METAL CHIP	18K	0.50%	1/10W
R157	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W
R158	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R159	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R160	1-216-013-00	METAL GLAZE	33	5%	1/10W
R161	1-216-697-91	METAL CHIP	82K	0.50%	1/10W
R162	1-216-697-91	METAL CHIP	82K	0.50%	1/10W
R163	1-208-774-11	METAL CHIP	470	0.50%	1/10W
R164	1-216-697-91	METAL CHIP	82K	0.50%	1/10W
R165	1-216-697-91	METAL CHIP	82K	0.50%	1/10W
R166	1-216-655-11	METAL CHIP	1.5K	0.50%	1/10W
R167	1-216-699-11	METAL CHIP	100K	0.50%	1/10W
R168	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R169	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R170	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R171	1-216-085-00	METAL GLAZE	33K	5%	1/10W
R172	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R173	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R177	1-216-699-11	METAL CHIP	100K	0.50%	1/10W
R178	1-216-655-11	METAL CHIP	1.5K	0.50%	1/10W
R179	1-216-671-11	METAL CHIP	6.8K	0.50%	1/10W
R180	1-216-025-91	METAL GLAZE	100	5%	1/10W
R181	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W
R182	1-216-025-91	METAL GLAZE	100	5%	1/10W
R200	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R201	1-208-774-11	METAL CHIP	470	0.50%	1/10W
R202	1-216-025-91	METAL GLAZE	100	5%	1/10W
R203	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R204	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R205	1-216-025-91	METAL GLAZE	100	5%	1/10W
R206	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R207	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R208	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R209	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R210	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R211	1-216-025-91	METAL GLAZE	100	5%	1/10W
R212	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R213	1-216-645-11	METAL CHIP	560	0.50%	1/10W
R214	1-216-657-11	METAL CHIP	1.8K	0.50%	1/10W
R215	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W
R216	1-216-665-11	METAL CHIP	3.9K	0.50%	1/10W
R217	1-216-025-91	METAL GLAZE	100	5%	1/10W
R218	1-216-025-91	METAL GLAZE	100	5%	1/10W
R219	1-216-025-91	METAL GLAZE	100	5%	1/10W
R220	1-216-025-91	METAL GLAZE	100	5%	1/10W
R221	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R222	1-218-758-11	METAL CHIP	180K	0.50%	1/10W
R223	1-218-756-11	METAL CHIP	150K	0.50%	1/10W
R224	1-208-822-11	METAL CHIP	47K	0.50%	1/10W
R225	1-218-760-11	METAL CHIP	220K	0.50%	1/10W
R226	1-218-754-11	METAL CHIP	120K	0.50%	1/10W
R227	1-216-687-11	METAL CHIP	33K	0.50%	1/10W
R228	1-208-822-11	METAL CHIP	47K	0.50%	1/10W
R229	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R230	1-216-025-91	METAL GLAZE	100	5%	1/10W
R231	1-216-025-91	METAL GLAZE	100	5%	1/10W
R232	1-216-029-00	METAL GLAZE	150	5%	1/10W
R233	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R234	1-216-025-91	METAL GLAZE	100	5%	1/10W
R235	1-216-029-00	METAL GLAZE	150	5%	1/10W
R236	1-216-025-91	METAL GLAZE	100	5%	1/10W
R237	1-216-029-00	METAL GLAZE	150	5%	1/10W
R239	1-216-043-91	METAL GLAZE	560	5%	1/10W
R241	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R242	1-216-025-91	METAL GLAZE	100	5%	1/10W
R243	1-216-043-91	METAL GLAZE	560	5%	1/10W
R245	1-216-029-00	METAL GLAZE	150	5%	1/10W
R247	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R248	1-216-655-11	METAL CHIP	1.5K	0.50%	1/10W
R249	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W
R250	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W
R251	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W
R252	1-216-025-91	METAL GLAZE	100	5%	1/10W
R253	1-216-025-91	METAL GLAZE	100	5%	1/10W
R254	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W
R255	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W
R256	1-216-025-91	METAL GLAZE	100	5%	1/10W
R257	1-216-025-91	METAL GLAZE	100	5%	1/10W
R258	1-216-025-91	METAL GLAZE	100	5%	1/10W
R259	1-216-025-91	METAL GLAZE	100	5%	1/10W
R260	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W
R261	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W
R262	1-216-025-91	METAL GLAZE	100	5%	1/10W
R263	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R264	1-216-025-91	METAL GLAZE	100	5%	1/10W
R265	1-216-025-91	METAL GLAZE	100	5%	1/10W
R266	1-216-025-91	METAL GLAZE	100	5%	1/10W
R267	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W
R268	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W
R269	1-216-025-91	METAL GLAZE	100	5%	1/10W
R271	1-216-025-91	METAL GLAZE	100	5%	1/10W
R272	1-216-025-91	METAL GLAZE	100	5%	1/10W
R273	1-216-025-91	METAL GLAZE	100	5%	1/10W
R274	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W
R275	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W
R276	1-216-025-91	METAL GLAZE	100	5%	1/10W
R277	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R278	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R279	1-216-025-91	METAL GLAZE	100	5%	1/10W
R280	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R281	1-216-025-91	METAL GLAZE	100	5%	1/10W
R282	1-216-025-91	METAL GLAZE	100	5%	1/10W
R283	1-216-025-91	METAL GLAZE	100	5%	1/10W
R284	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W
R285	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W
R286	1-216-025-91	METAL GLAZE	100	5%	1/10W
R287	1-216-025-91	METAL GLAZE	100	5%	1/10W
R288	1-216-025-91	METAL GLAZE	100	5%	1/10W
R289	1-216-025-91	METAL GLAZE	100	5%	1/10W
R290	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W
R291	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W
R292	1-216-025-91	METAL GLAZE	100	5%	1/10W
R293	1-216-025-91	METAL GLAZE	100	5%	1/10W
R294	1-216-025-91	METAL GLAZE	100	5%	1/10W
R295	1-216-025-91	METAL GLAZE	100	5%	1/10W
R296	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W
R297	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W
R298	1-216-025-91	METAL GLAZE	100	5%	1/10W
R299	1-216-025-91	METAL GLAZE	100	5%	1/10W
R300	1-216-025-91	METAL GLAZE	100	5%	1/10W
R301	1-216-025-91	METAL GLAZE	100	5%	1/10W
R302	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W
R303	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W
R304	1-216-025-91	METAL GLAZE	100	5%	1/10W
R305	1-216-025-91	METAL GLAZE	100	5%	1/10W
R306	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R307	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R310	1-208-806-11	METAL CHIP	10K	0.50%	1/10W
R311	1-208-806-11	METAL CHIP	10K	0.50%	1/10W
R312	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W
R313	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R314	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W
R315	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W
R316	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R317	1-216-025-91	METAL GLAZE	100	5%	1/10W
R321	1-216-049-91	METAL GLAZE	1K	5%	1/10W

REF. NO.	PART NO.	DESCRIPTION			REMARK
R322	1-216-025-91	METAL GLAZE	100	5%	1/10W
R323	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W
R324	1-216-025-91	METAL GLAZE	100	5%	1/10W
R325	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W
R326	1-216-025-91	METAL GLAZE	100	5%	1/10W
R327	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R401	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R402	1-216-671-11	METAL CHIP	6.8K	0.50%	1/10W
R403	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R404	1-216-671-11	METAL CHIP	6.8K	0.50%	1/10W
R405	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R406	1-216-101-00	METAL GLAZE	150K	5%	1/10W
R407	1-218-754-11	METAL CHIP	120K	0.50%	1/10W
R408	1-216-689-11	METAL CHIP	39K	0.50%	1/10W
R409	1-216-101-00	METAL GLAZE	150K	5%	1/10W
R410	1-218-754-11	METAL CHIP	120K	0.50%	1/10W
R411	1-216-685-11	METAL CHIP	27K	0.50%	1/10W
R412	1-208-806-11	METAL CHIP	10K	0.50%	1/10W
R413	1-208-806-11	METAL CHIP	10K	0.50%	1/10W
R414	1-208-806-11	METAL CHIP	10K	0.50%	1/10W
R415	1-208-806-11	METAL CHIP	10K	0.50%	1/10W
R416	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R417	1-216-025-91	METAL GLAZE	100	5%	1/10W
R418	1-216-025-91	METAL GLAZE	100	5%	1/10W
R601	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R602	1-208-822-11	METAL CHIP	47K	0.50%	1/10W
R603	1-208-822-11	METAL CHIP	47K	0.50%	1/10W
R604	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R605	1-216-655-11	METAL CHIP	1.5K	0.50%	1/10W
R606	1-216-635-11	METAL CHIP	220	0.50%	1/10W
R607	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W
R608	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R609	1-216-655-11	METAL CHIP	1.5K	0.50%	1/10W
R610	1-216-677-11	METAL CHIP	12K	0.50%	1/10W
R611	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R612	1-208-806-11	METAL CHIP	10K	0.50%	1/10W
R613	1-216-671-11	METAL CHIP	6.8K	0.50%	1/10W
R614	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R615	1-216-659-11	METAL CHIP	2.2K	0.50%	1/10W
R701	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R702	1-216-689-11	METAL GLAZE	39K	5%	1/10W
R703	1-216-671-11	METAL CHIP	6.8K	0.50%	1/10W
R704	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R705	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R706	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R707	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R708	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R709	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R710	1-216-037-00	METAL GLAZE	330	5%	1/10W
R711	1-216-037-00	METAL GLAZE	330	5%	1/10W
R712	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R713	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R714	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R715	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R716	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R717	1-216-689-11	METAL GLAZE	39K	5%	1/10W
R718	1-216-671-11	METAL CHIP	6.8K	0.50%	1/10W
R719	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R720	1-216-083-00	METAL GLAZE	27K	5%	1/10W
R721	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R722	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R723	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R724	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R725	1-216-063-91	METAL GLAZE	3.9K	5%	1/10W
R726	1-216-039-00	METAL GLAZE	390	5%	1/10W
R727	1-216-077-00	METAL GLAZE	15K	5%	1/10W
R728	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R729	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R730	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R732	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R733	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R803	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R804	1-216-077-00	METAL GLAZE	15K	5%	1/10W
R807	1-216-049-91	METAL GLAZE	1K	5%	1/10W

<VARIABLE RESISTOR>

REF. NO.	PART NO.	DESCRIPTION
RV1	1-237-503-21	RES, ADJ, CERMET 10K
RV2	1-237-503-21	RES, ADJ, CERMET 10K
RV3	1-237-501-21	RES, ADJ, CERMET 2K
RV4	1-237-505-21	RES, ADJ, CERMET 50K
RV5	1-237-505-21	RES, ADJ, CERMET 50K
RV6	1-237-504-21	RES, ADJ, CERMET 20K

<SWITCH>

REF. NO.	PART NO.	DESCRIPTION
S1	1-570-865-11	SWITCH, SLIDE
S2	1-570-865-11	SWITCH, SLIDE

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* A-1346-230-A DB BOARD, COMPLETE
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<CAPACITOR>

REF. NO.	PART NO.	DESCRIPTION			REMARK
C1501	1-126-941-11	ELECT	470µF	20%	16V
C1502	1-126-941-11	ELECT	470µF	20%	16V
C1505	1-104-665-11	ELECT	100µF	20%	16V
C1506	1-104-665-11	ELECT	100µF	20%	16V
C1507	1-124-907-11	ELECT	10µF	20%	50V
C1508	1-163-243-11	CERAMIC CHIP	47pF	5%	50V
C1509	1-164-161-11	CERAMIC CHIP	0.0022µF	10%	50V
C1510	1-164-161-11	CERAMIC CHIP	0.0022µF	10%	50V
C1511	1-164-161-11	CERAMIC CHIP	0.0022µF	10%	50V
C1512	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C1513	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C1514	1-104-665-11	ELECT	100µF	20%	16V
C1600	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C1601	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C1602	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C1603	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C1604	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C1605	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C1606	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C1607	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C1608	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C1609	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C1610	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C1611	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C1612	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C1613	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C1614	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C1615	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C1616	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C1617	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C1618	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C1619	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C1620	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C1621	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C1622	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C1623	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C1624	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C1625	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C1626	1-163-031-11	CERAMIC CHIP	0.01µF	50V	
C1627	1-163-031-11	CERAMIC CHIP	0.01µF	50V	

DB

REF. NO.	PART NO.	DESCRIPTION		REMARK
C1628	1-163-031-11	CERAMIC CHIP 0.01μF	50V	
C1629	1-163-031-11	CERAMIC CHIP 0.01μF	50V	
C1630	1-163-031-11	CERAMIC CHIP 0.01μF	50V	
C1631	1-163-031-11	CERAMIC CHIP 0.01μF	50V	
C1632	1-163-031-11	CERAMIC CHIP 0.01μF	50V	
C1633	1-163-031-11	CERAMIC CHIP 0.01μF	50V	
C1634	1-163-031-11	CERAMIC CHIP 0.01μF	50V	
C1635	1-163-031-11	CERAMIC CHIP 0.01μF	50V	
C1636	1-163-031-11	CERAMIC CHIP 0.01μF	50V	
C1637	1-163-031-11	CERAMIC CHIP 0.01μF	50V	
C1638	1-163-031-11	CERAMIC CHIP 0.01μF	50V	
C1639	1-163-031-11	CERAMIC CHIP 0.01μF	50V	
C1640	1-163-031-11	CERAMIC CHIP 0.01μF	50V	
C1641	1-163-031-11	CERAMIC CHIP 0.01μF	50V	
C1642	1-163-031-11	CERAMIC CHIP 0.01μF	50V	
C1643	1-163-031-11	CERAMIC CHIP 0.01μF	50V	

<CONNECTOR>

REF. NO.	PART NO.	DESCRIPTION	REMARK
CN181	*1-766-305-11	PIN, PC CONNECTOR 96P	
CN182	*1-564-525-11	PLUG, CONNECTOR 10P	
CN183	*1-564-525-11	PLUG, CONNECTOR 10P	
CN184	*1-564-525-11	PLUG, CONNECTOR 10P	

<DIODE>

REF. NO.	PART NO.	DESCRIPTION	REMARK
D1501	8-719-900-95	DIODE V09G	
D1502	8-719-900-95	DIODE V09G	
D1503	8-719-800-76	DIODE 1SS226	
D1504	8-719-800-76	DIODE 1SS226	
D1505	8-719-800-76	DIODE 1SS226	
D1506	8-719-800-76	DIODE 1SS226	
D1507	8-719-800-76	DIODE 1SS226	
D1508	8-719-800-76	DIODE 1SS226	
D1509	8-719-911-19	DIODE 1SS119-25	
D1901	8-719-106-17	DIODE RD6.8M-B2	

<IC>

REF. NO.	PART NO.	DESCRIPTION	REMARK
IC1501	8-759-144-82	IC μPC2405HF	
IC1502	8-759-247-67	IC LM2990T-5.0	
IC1503	8-759-908-15	IC TL431CLP	
IC1504	8-759-926-67	IC SN74HC374ANS	
IC1505	8-759-926-48	IC SN74HC244ANS	
IC1506	8-759-926-48	IC SN74HC244ANS	
IC1507	8-759-926-48	IC SN74HC244ANS	
IC1508	8-759-925-74	IC SN74HC04ANS	
IC1509	8-759-925-90	IC SN74HC74ANS	
IC1510	8-759-925-76	IC SN74HC08ANS	
IC1511	8-759-239-23	IC TC74HC86AF	
IC1512	8-759-232-74	IC TC74HC163AF	
IC1513	8-759-927-46	IC SN74HC00ANS	
IC1514	8-759-236-51	IC TC74HC165AF (EL)	
IC1515	8-759-236-51	IC TC74HC165AF (EL)	
IC1516	8-759-925-90	IC SN74HC74ANS	
IC1517	8-759-267-60	IC μPD74HC238GS-E2	
IC1518	8-759-267-60	IC μPD74HC238GS-E2	
IC1519	8-759-267-60	IC μPD74HC238GS-E2	
IC1520	8-759-041-45	IC DAC8840FS	
IC1521	8-759-041-45	IC DAC8840FS	
IC1522	8-759-041-45	IC DAC8840FS	
IC1523	8-759-041-45	IC DAC8840FS	
IC1524	8-759-041-45	IC DAC8840FS	
IC1525	8-759-041-45	IC DAC8840FS	
IC1526	8-759-041-45	IC DAC8840FS	
IC1527	8-759-041-45	IC DAC8840FS	
IC1528	8-759-041-45	IC DAC8840FS	
IC1529	8-759-041-45	IC DAC8840FS	
IC1530	8-759-041-45	IC DAC8840FS	
IC1531	8-759-041-45	IC DAC8840FS	
IC1532	8-759-041-45	IC DAC8840FS	
IC1533	8-759-041-45	IC DAC8840FS	
IC1534	8-759-041-45	IC DAC8840FS	
IC1535	8-759-041-45	IC DAC8840FS	
IC1536	8-759-041-45	IC DAC8840FS	
IC1537	8-759-041-45	IC DAC8840FS	
IC1538	8-759-114-06	IC μPC814G2-1	
IC1539	8-759-114-06	IC μPC814G2-1	
IC1540	8-759-114-06	IC μPC814G2-1	
IC1541	8-759-100-96	IC μPC4558G2	
IC1542	8-759-100-96	IC μPC4558G2	
IC1543	8-759-041-54	IC MN1382S	

<COIL>

REF. NO.	PART NO.	DESCRIPTION	REMARK
L1501	1-459-155-00	COIL (WITH CORE) 45μH	
L1502	1-459-155-00	COIL (WITH CORE) 45μH	

<RESISTOR>

REF. NO.	PART NO.	DESCRIPTION			REMARK
R1500	1-216-065-00	METAL GLAZE 4.7K	5%	1/10W	
R1501	1-216-627-11	METAL CHIP 100	0.50%	1/10W	
R1502	1-216-627-11	METAL CHIP 100	0.50%	1/10W	
R1503	1-216-627-11	METAL CHIP 100	0.50%	1/10W	
R1504	1-216-049-91	METAL GLAZE 1K	5%	1/10W	
R1505	1-216-065-00	METAL GLAZE 4.7K	5%	1/10W	
R1506	1-216-065-00	METAL GLAZE 4.7K	5%	1/10W	
R1507	1-216-065-00	METAL GLAZE 4.7K	5%	1/10W	
R1508	1-216-065-00	METAL GLAZE 4.7K	5%	1/10W	
R1509	1-216-065-00	METAL GLAZE 4.7K	5%	1/10W	
R1510	1-216-065-00	METAL GLAZE 4.7K	5%	1/10W	
R1511	1-216-065-00	METAL GLAZE 4.7K	5%	1/10W	
R1512	1-216-065-00	METAL GLAZE 4.7K	5%	1/10W	
R1513	1-216-049-91	METAL GLAZE 1K	5%	1/10W	
R1514	1-216-049-91	METAL GLAZE 1K	5%	1/10W	
R1515	1-216-049-91	METAL GLAZE 1K	5%	1/10W	
R1516	1-216-049-91	METAL GLAZE 1K	5%	1/10W	
R1517	1-216-049-91	METAL GLAZE 1K	5%	1/10W	
R1518	1-216-049-91	METAL GLAZE 1K	5%	1/10W	
R1519	1-216-049-91	METAL GLAZE 1K	5%	1/10W	
R1520	1-216-049-91	METAL GLAZE 1K	5%	1/10W	
R1521	1-216-065-00	METAL GLAZE 4.7K	5%	1/10W	
R1522	1-216-065-00	METAL GLAZE 4.7K	5%	1/10W	
R1523	1-216-065-00	METAL GLAZE 4.7K	5%	1/10W	
R1524	1-216-065-00	METAL GLAZE 4.7K	5%	1/10W	
R1525	1-216-065-00	METAL GLAZE 4.7K	5%	1/10W	
R1526	1-216-065-00	METAL GLAZE 4.7K	5%	1/10W	
R1527	1-216-065-00	METAL GLAZE 4.7K	5%	1/10W	
R1528	1-216-065-00	METAL GLAZE 4.7K	5%	1/10W	
R1529	1-216-049-91	METAL GLAZE 1K	5%	1/10W	
R1530	1-216-049-91	METAL GLAZE 1K	5%	1/10W	
R1531	1-216-049-91	METAL GLAZE 1K	5%	1/10W	
R1532	1-216-049-91	METAL GLAZE 1K	5%	1/10W	
R1533	1-216-049-91	METAL GLAZE 1K	5%	1/10W	
R1534	1-216-049-91	METAL GLAZE 1K	5%	1/10W	
R1535	1-216-049-91	METAL GLAZE 1K	5%	1/10W	
R1536	1-216-049-91	METAL GLAZE 1K	5%	1/10W	
R1537	1-216-659-11	METAL CHIP 2.2K	0.50%	1/10W	
R1538	1-216-659-11	METAL CHIP 2.2K	0.50%	1/10W	
R1540	1-216-065-00	METAL GLAZE 4.7K	5%	1/10W	
R1600	1-216-611-11	METAL CHIP 22	0.50%	1/10W	
R1601	1-216-627-11	METAL CHIP 100	0.50%	1/10W	
R1602	1-216-627-11	METAL CHIP 100	0.50%	1/10W	
R1603	1-216-627-11	METAL CHIP 100	0.50%	1/10W	
R1604	1-216-627-11	METAL CHIP 100	0.50%	1/10W	
R1605	1-216-627-11	METAL CHIP 100	0.50%	1/10W	
R1606	1-216-627-11	METAL CHIP 100	0.50%	1/10W	
R1607	1-216-611-11	METAL CHIP 22	0.50%	1/10W	
R1608	1-216-627-11	METAL CHIP 100	0.50%	1/10W	

DB

REF. NO.	PART NO.	DESCRIPTION			REMARK
R1609	1-216-627-11	METAL CHIP	100	0.50%	1/10W
R1610	1-216-627-11	METAL CHIP	100	0.50%	1/10W
R1611	1-216-627-11	METAL CHIP	100	0.50%	1/10W
R1612	1-216-627-11	METAL CHIP	100	0.50%	1/10W
R1613	1-216-627-11	METAL CHIP	100	0.50%	1/10W
R1614	1-216-627-11	METAL CHIP	100	0.50%	1/10W
R1615	1-216-627-11	METAL CHIP	100	0.50%	1/10W
R1616	1-216-627-11	METAL CHIP	100	0.50%	1/10W
R1617	1-216-627-11	METAL CHIP	100	0.50%	1/10W
R1618	1-216-627-11	METAL CHIP	100	0.50%	1/10W
R1619	1-216-627-11	METAL CHIP	100	0.50%	1/10W
R1620	1-216-627-11	METAL CHIP	100	0.50%	1/10W
R1621	1-216-627-11	METAL CHIP	100	0.50%	1/10W
R1622	1-216-627-11	METAL CHIP	100	0.50%	1/10W
R1624	1-216-627-11	METAL CHIP	100	0.50%	1/10W
R1625	1-216-627-11	METAL CHIP	100	0.50%	1/10W
R1626	1-216-627-11	METAL CHIP	100	0.50%	1/10W
R1627	1-216-627-11	METAL CHIP	100	0.50%	1/10W
R1628	1-216-627-11	METAL CHIP	100	0.50%	1/10W
R1629	1-216-627-11	METAL CHIP	100	0.50%	1/10W
R1630	1-216-627-11	METAL CHIP	100	0.50%	1/10W
R1631	1-216-611-11	METAL CHIP	22	0.50%	1/10W
R1632	1-216-611-11	METAL CHIP	22	0.50%	1/10W
R1633	1-216-033-00	METAL GLAZE	220	5%	1/10W
R1634	1-216-627-11	METAL CHIP	100	0.50%	1/10W
R1635	1-216-627-11	METAL CHIP	100	0.50%	1/10W
R1700	1-208-784-11	METAL CHIP	1.2K	0.50%	1/10W
R1701	1-208-784-11	METAL CHIP	1.2K	0.50%	1/10W
R1702	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R1703	1-208-784-11	METAL CHIP	1.2K	0.50%	1/10W
R1704	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R1705	1-216-671-11	METAL CHIP	6.8K	0.50%	1/10W
R1706	1-216-671-11	METAL CHIP	6.8K	0.50%	1/10W
R1707	1-216-671-11	METAL CHIP	6.8K	0.50%	1/10W
R1708	1-216-677-11	METAL CHIP	12K	0.50%	1/10W
R1709	1-216-677-11	METAL CHIP	12K	0.50%	1/10W
R1710	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R1711	1-216-677-11	METAL CHIP	12K	0.50%	1/10W
R1712	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R1713	1-208-814-11	METAL CHIP	22K	0.50%	1/10W
R1714	1-208-814-11	METAL CHIP	22K	0.50%	1/10W
R1715	1-208-814-11	METAL CHIP	22K	0.50%	1/10W
R1716	1-216-671-11	METAL CHIP	6.8K	0.50%	1/10W
R1717	1-216-665-11	METAL CHIP	3.9K	0.50%	1/10W
R1718	1-216-671-11	METAL CHIP	6.8K	0.50%	1/10W
R1719	1-216-645-11	METAL CHIP	560	0.50%	1/10W
R1720	1-216-645-11	METAL CHIP	560	0.50%	1/10W
R1721	1-208-800-11	METAL CHIP	5.6K	0.50%	1/10W
R1722	1-216-671-11	METAL CHIP	6.8K	0.50%	1/10W
R1723	1-216-671-11	METAL CHIP	6.8K	0.50%	1/10W
R1724	1-216-671-11	METAL CHIP	6.8K	0.50%	1/10W
R1725	1-216-665-11	METAL CHIP	3.9K	0.50%	1/10W
R1726	1-216-665-11	METAL CHIP	3.9K	0.50%	1/10W
R1727	1-216-665-11	METAL CHIP	3.9K	0.50%	1/10W
R1728	1-208-800-11	METAL CHIP	5.6K	0.50%	1/10W
R1729	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W
R1730	1-216-667-11	METAL CHIP	4.7K	0.50%	1/10W
R1731	1-216-677-11	METAL CHIP	12K	0.50%	1/10W
R1732	1-216-677-11	METAL CHIP	12K	0.50%	1/10W
R1733	1-216-697-91	METAL CHIP	82K	0.50%	1/10W
R1734	1-216-697-91	METAL CHIP	82K	0.50%	1/10W
R1735	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R1736	1-216-697-91	METAL CHIP	82K	0.50%	1/10W
R1737	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R1738	1-218-768-11	METAL CHIP	470K	0.50%	1/10W
R1739	1-218-768-11	METAL CHIP	470K	0.50%	1/10W
R1740	1-218-768-11	METAL CHIP	470K	0.50%	1/10W
R1741	1-208-822-11	METAL CHIP	47K	0.50%	1/10W

REF. NO.	PART NO.	DESCRIPTION			REMARK
R1742	1-208-822-11	METAL CHIP	47K	0.50%	1/10W
R1743	1-208-822-11	METAL CHIP	47K	0.50%	1/10W
R1744	1-216-697-91	METAL CHIP	82K	0.50%	1/10W
R1745	1-216-697-91	METAL CHIP	82K	0.50%	1/10W
R1746	1-218-756-11	METAL CHIP	150K	0.50%	1/10W
R1747	1-208-806-11	METAL CHIP	10K	0.50%	1/10W
R1748	1-216-627-11	METAL CHIP	100	0.50%	1/10W
R1749	1-208-806-11	METAL CHIP	10K	0.50%	1/10W
R1750	1-208-806-11	METAL CHIP	10K	0.50%	1/10W
R1751	1-216-697-91	METAL CHIP	82K	0.50%	1/10W
R1752	1-216-697-91	METAL CHIP	82K	0.50%	1/10W
R1753	1-218-760-11	METAL CHIP	220K	0.50%	1/10W
R1754	1-218-760-11	METAL CHIP	220K	0.50%	1/10W
R1755	1-218-768-11	METAL CHIP	470K	0.50%	1/10W
R1756	1-218-768-11	METAL CHIP	470K	0.50%	1/10W
R1757	1-218-768-11	METAL CHIP	470K	0.50%	1/10W
R1758	1-218-760-11	METAL CHIP	220K	0.50%	1/10W
R1759	1-208-806-11	METAL CHIP	10K	0.50%	1/10W
R1760	1-208-812-11	METAL CHIP	18K	0.50%	1/10W
R1761	1-208-806-11	METAL CHIP	10K	0.50%	1/10W
R1762	1-208-810-11	METAL CHIP	15K	0.50%	1/10W
R1763	1-208-810-11	METAL CHIP	15K	0.50%	1/10W
R1764	1-208-810-11	METAL CHIP	15K	0.50%	1/10W
R1765	1-216-663-11	METAL CHIP	3.3K	0.50%	1/10W
R1766	1-216-663-11	METAL CHIP	3.3K	0.50%	1/10W
R1767	1-216-663-11	METAL CHIP	3.3K	0.50%	1/10W
R1768	1-216-671-11	METAL CHIP	6.8K	0.50%	1/10W
R1769	1-216-671-11	METAL CHIP	6.8K	0.50%	1/10W
R1770	1-216-671-11	METAL CHIP	6.8K	0.50%	1/10W
R1771	1-208-812-11	METAL CHIP	18K	0.50%	1/10W
R1772	1-208-812-11	METAL CHIP	18K	0.50%	1/10W
R1773	1-208-814-11	METAL CHIP	22K	0.50%	1/10W
R1774	1-208-814-11	METAL CHIP	22K	0.50%	1/10W
R1775	1-208-814-11	METAL CHIP	22K	0.50%	1/10W
R1776	1-208-814-11	METAL CHIP	22K	0.50%	1/10W
R1777	1-208-814-11	METAL CHIP	22K	0.50%	1/10W
R1778	1-208-814-11	METAL CHIP	22K	0.50%	1/10W
R1779	1-216-677-11	METAL CHIP	12K	0.50%	1/10W
R1780	1-216-677-11	METAL CHIP	12K	0.50%	1/10W
R1781	1-216-677-11	METAL CHIP	12K	0.50%	1/10W
R1782	1-216-677-11	METAL CHIP	12K	0.50%	1/10W
R1783	1-216-677-11	METAL CHIP	12K	0.50%	1/10W
R1784	1-216-677-11	METAL CHIP	12K	0.50%	1/10W
R1785	1-216-677-11	METAL CHIP	12K	0.50%	1/10W
R1786	1-216-677-11	METAL CHIP	12K	0.50%	1/10W
R1787	1-216-677-11	METAL CHIP	12K	0.50%	1/10W
R1788	1-216-677-11	METAL CHIP	12K	0.50%	1/10W
R1789	1-216-677-11	METAL CHIP	12K	0.50%	1/10W
R1790	1-216-677-11	METAL CHIP	12K	0.50%	1/10W
R1791	1-216-677-11	METAL CHIP	12K	0.50%	1/10W
R1792	1-216-677-11	METAL CHIP	12K	0.50%	1/10W
R1793	1-216-677-11	METAL CHIP	12K	0.50%	1/10W
R1794	1-216-677-11	METAL CHIP	12K	0.50%	1/10W
R1795	1-216-673-11	METAL CHIP	8.2K	0.50%	1/10W
R1796	1-216-673-11	METAL CHIP	8.2K	0.50%	1/10W
R1797	1-216-673-11	METAL CHIP	8.2K	0.50%	1/10W
R1798	1-216-673-11	METAL CHIP	8.2K	0.50%	1/10W
R1799	1-216-673-11	METAL CHIP	8.2K	0.50%	1/10W
R1800	1-216-673-11	METAL CHIP	8.2K	0.50%	1/10W
R1801	1-216-673-11	METAL CHIP	8.2K	0.50%	1/10W
R1802	1-216-673-11	METAL CHIP	8.2K	0.50%	1/10W
R1803	1-216-673-11	METAL CHIP	8.2K	0.50%	1/10W
R1804	1-216-673-11	METAL CHIP	8.2K	0.50%	1/10W
R1805	1-216-673-11	METAL CHIP	8.2K	0.50%	1/10W
R1806	1-216-673-11	METAL CHIP	8.2K	0.50%	1/10W
R1807	1-208-814-11	METAL CHIP	22K	0.50%	1/10W
R1808	1-208-814-11	METAL CHIP	22K	0.50%	1/10W
R1809	1-208-814-11	METAL CHIP	22K	0.50%	1/10W

DB **K**

REF. NO.	PART NO.	DESCRIPTION			REMARK
R1810	1-208-814-11	METAL CHIP	22K	0.50%	1/10W
R1811	1-208-814-11	METAL CHIP	22K	0.50%	1/10W
R1812	1-208-814-11	METAL CHIP	22K	0.50%	1/10W
R1813	1-208-806-11	METAL CHIP	10K	0.50%	1/10W
R1814	1-208-806-11	METAL CHIP	10K	0.50%	1/10W
R1815	1-208-806-11	METAL CHIP	10K	0.50%	1/10W
R1816	1-216-677-11	METAL CHIP	12K	0.50%	1/10W
R1817	1-216-677-11	METAL CHIP	12K	0.50%	1/10W
R1818	1-216-677-11	METAL CHIP	12K	0.50%	1/10W
R1819	1-216-673-11	METAL CHIP	8.2K	0.50%	1/10W
R1820	1-216-673-11	METAL CHIP	8.2K	0.50%	1/10W
R1821	1-216-673-11	METAL CHIP	8.2K	0.50%	1/10W
R1822	1-216-673-11	METAL CHIP	8.2K	0.50%	1/10W
R1823	1-216-673-11	METAL CHIP	8.2K	0.50%	1/10W
R1824	1-216-673-11	METAL CHIP	8.2K	0.50%	1/10W
R1825	1-216-673-11	METAL CHIP	8.2K	0.50%	1/10W
R1826	1-216-673-11	METAL CHIP	8.2K	0.50%	1/10W
R1827	1-216-673-11	METAL CHIP	8.2K	0.50%	1/10W
R1828	1-216-673-11	METAL CHIP	8.2K	0.50%	1/10W
R1829	1-216-673-11	METAL CHIP	8.2K	0.50%	1/10W
R1830	1-216-673-11	METAL CHIP	8.2K	0.50%	1/10W
R1831	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R1832	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R1833	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R1834	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R1835	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R1836	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R1837	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R1838	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R1839	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R1840	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R1841	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R1842	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R1843	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R1844	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R1845	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R1846	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R1848	1-208-822-11	METAL CHIP	47K	0.50%	1/10W
R1849	1-208-822-11	METAL CHIP	47K	0.50%	1/10W
R1850	1-208-822-11	METAL CHIP	47K	0.50%	1/10W
R1900	1-216-663-11	METAL CHIP	3.3K	0.50%	1/10W
R1901	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R1902	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R1903	1-216-663-11	METAL CHIP	3.3K	0.50%	1/10W
R1904	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R1905	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R1906	1-216-663-11	METAL CHIP	3.3K	0.50%	1/10W
R1907	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R1908	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R1909	1-216-663-11	METAL CHIP	3.3K	0.50%	1/10W
R1910	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R1911	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R1912	1-216-663-11	METAL CHIP	3.3K	0.50%	1/10W
R1913	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R1914	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R1915	1-216-663-11	METAL CHIP	3.3K	0.50%	1/10W
R1916	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R1917	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R1918	1-208-810-11	METAL CHIP	15K	0.50%	1/10W
R1919	1-216-627-11	METAL CHIP	100	0.50%	1/10W
R1920	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R1921	1-208-810-11	METAL CHIP	15K	0.50%	1/10W
R1922	1-216-627-11	METAL CHIP	100	0.50%	1/10W
R1923	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R1924	1-208-810-11	METAL CHIP	15K	0.50%	1/10W
R1925	1-216-627-11	METAL CHIP	100	0.50%	1/10W
R1926	1-216-651-11	METAL CHIP	1K	0.50%	1/10W
R1928	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R1929	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R1930	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R1931	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R1932	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R1933	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R1934	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R1935	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R1936	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R1937	1-216-025-91	METAL GLAZE	100	5%	1/10W
R1938	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R1939	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R1940	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R1941	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R1942	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R1943	1-216-025-91	METAL GLAZE	100	5%	1/10W
R1944	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R1945	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R1946	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R1947	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R1948	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R1949	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R1950	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R1951	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R1952	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R1953	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R1954	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R1955	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R1956	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R1957	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R1958	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R1959	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R1960	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R1961	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R1962	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R1963	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R1964	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R1965	1-216-073-00	METAL GLAZE	10K	5%	1/10W

<CRYSTAL>

X1501	1-567-504-11	OSCILLATOR, CRYSTAL

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* A-1380-466-A K BOARD, COMPLETE
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* 4-034-120-01	HOLDER (A)
4-382-854-11	SCREW (M3X10), P, SW (+)

<CAPACITOR>

C201	1-124-907-11	ELECT	10µF	20%	50V
C202	1-124-907-11	ELECT	10µF	20%	50V
C203	1-124-907-11	ELECT	10µF	20%	50V
C204	1-101-004-00	CERAMIC	0.01µF	50V	
C205	1-101-004-00	CERAMIC	0.01µF	50V	
C206	1-124-907-11	ELECT	10µF	20%	50V
C207	1-124-794-51	ELECT	4.7µF	20%	100V
C208	1-102-050-00	CERAMIC	0.01µF		500V
C209	1-124-903-11	ELECT	1µF	20%	50V
C210	1-136-173-00	FILM	0.47µF	5%	50V
C211	1-124-910-11	ELECT	47µF	20%	50V
C212	1-124-910-11	ELECT	47µF	20%	50V
C213	1-124-907-11	ELECT	10µF	20%	50V
C214	1-124-907-11	ELECT	10µF	20%	50V

<CONNECTOR>

CN291	1-564-511-11	PLUG, CONNECTOR 8P

K **KA**

REF. NO.	PART NO.	DESCRIPTION				REMARK
CN292	1-508-784-00	PIN, CONNECTOR (5mm PITCH) 1P				
CN293	*1-564-505-11	PLUG, CONNECTOR 2P				
CN294	*1-564-506-11	PLUG, CONNECTOR 3P				
		<DIODE>				
D201	8-719-110-17	DIODE RD10ESB2				
D202	8-719-110-17	DIODE RD10ESB2				
D203	8-719-948-45	DIODE ERA22-08				
D204	8-719-911-19	DIODE 1SS119-25				
D205	8-719-911-19	DIODE 1SS119-25				
		<IC>				
IC201	8-759-109-82	IC μPC814C				
IC202	8-759-109-82	IC μPC814C				
		<COIL>				
L201	1-459-155-00	COIL (WITH CORE) 45μH				
		<TRANSISTOR>				
Q201	8-729-112-61	TRANSISTOR 2SA1441-L				
Q202	8-729-207-82	TRANSISTOR 2SC3421-Y				
Q203	8-729-143-42	TRANSISTOR 2SK929				
Q204	8-729-143-42	TRANSISTOR 2SK929				
Q205	8-729-142-74	TRANSISTOR 2SD1977				
Q206	8-729-142-70	TRANSISTOR 2SB1315				
		<RESISTOR>				
R201	1-215-429-00	METAL	2.2K	1%	1/4W	
R202	1-215-429-00	METAL	2.2K	1%	1/4W	
R203	1-215-461-00	METAL	47K	1%	1/4W	
R204	1-215-429-00	METAL	2.2K	1%	1/4W	
R205	1-249-417-11	CARBON	1K	5%	1/4W	
R206	1-215-445-00	METAL	10K	1%	1/4W	
R207	1-249-425-11	CARBON	4.7K	5%	1/4W	
R208	1-215-453-00	METAL	22K	1%	1/4W	
R209	1-215-453-00	METAL	22K	1%	1/4W	
R210	1-202-818-00	SOLID	1K	20%	1/2W	
R211	1-202-818-00	SOLID	1K	20%	1/2W	
R212	1-249-429-11	CARBON	10K	5%	1/4W	
R213	1-249-441-11	CARBON	100K	5%	1/4W	
R214	1-215-491-00	METAL	820K	1%	1/4W	
R215	1-215-902-11	METAL OXIDE	47K	5%	2W	F
R216	1-215-409-00	METAL	330	1%	1/4W	
R217	1-249-425-11	CARBON	4.7K	5%	1/4W	
R218	1-249-429-11	CARBON	10K	5%	1/4W	
R219	1-249-923-11	CARBON	1K	5%	1/4W	F
R220	1-249-899-11	CARBON	100	5%	1/4W	F
R221	1-202-842-11	SOLID	220K	20%	1/2W	
R222	1-249-923-11	CARBON	1K	5%	1/4W	F
R223	1-215-904-11	METAL OXIDE	100K	5%	2W	F
R224	1-202-842-11	SOLID	220K	20%	1/2W	
R225	1-249-923-11	CARBON	1K	5%	1/4W	F
R226	1-249-389-11	CARBON	4.7	5%	1/4W	F
R227	1-249-451-11	CARBON	2.2	5%	1/4W	F
R228	1-215-425-00	METAL	1.5K	1%	1/4W	
R229	1-249-437-11	CARBON	47K	5%	1/4W	
R230	1-215-407-00	METAL	270	1%	1/4W	
R231	1-215-435-00	METAL	3.9K	1%	1/4W	
R232	1-249-899-11	CARBON	100	5%	1/4W	F
R233	1-249-899-11	CARBON	100	5%	1/4W	F
R234	1-249-447-11	CARBON	1	5%	1/4W	F
R235	1-249-447-11	CARBON	1	5%	1/4W	F
R236	1-249-923-11	CARBON	1K	5%	1/4W	F
R237	1-247-863-91	CARBON	22K	5%	1/4W	

REF. NO.	PART NO.	DESCRIPTION				REMARK
R238	1-249-451-11	CARBON	2.2	5%	1/4W	F
		<SPARK GAP>				
SG201	1-519-063-99	DISCHARGING GAP				
SG202	1-519-063-99	DISCHARGING GAP				
		<TRANSFORMER>				
T201	1-424-287-11	TRANSFORMER, DYNAMIC FOCUS				

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* A-1385-158-A KA BOARD, COMPLETE
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	PART NO.	DESCRIPTION				
	7-682-949-01	SCREW +PSW 3X10				
	7-682-951-01	SCREW +PSW 3X14				
		<CAPACITOR>				
C501	1-101-004-00	CERAMIC	0.01μF	50V		
C502	1-124-907-11	ELECT	10μF	20%	50V	
C503	1-104-665-11	ELECT	100μF	20%	16V	
C504	1-126-965-11	ELECT	22μF	20%	50V	
C505	1-104-665-11	ELECT	100μF	20%	16V	
C506	1-101-004-00	CERAMIC	0.01μF	50V		
C507	1-104-665-11	ELECT	100μF	20%	16V	
C508	1-126-965-11	ELECT	22μF	20%	50V	
C509	1-164-161-11	CERAMIC CHIP	0.0022μF	50V		
C510	1-124-907-11	ELECT	10μF	20%	50V	
C511	1-124-907-11	ELECT	10μF	20%	50V	
C512	1-124-556-11	ELECT	2200μF	20%	16V	
C513	1-124-907-11	ELECT	10μF	20%	50V	
C514	1-104-665-11	ELECT	100μF	20%	16V	
C515	1-101-004-00	CERAMIC	0.01μF	50V		
C516	1-101-004-00	CERAMIC	0.01μF	50V		
C517	1-126-967-11	ELECT	47μF	20%	35V	
C520	1-126-963-11	ELECT	4.7μF	20%	50V	
C521	1-126-963-11	ELECT	4.7μF	20%	50V	
C522	1-126-965-11	ELECT	22μF	20%	50V	
C523	1-163-133-00	CERAMIC CHIP	470pF	5%	50V	
C524	1-164-161-11	CERAMIC CHIP	0.0022μF	50V		
C525	1-124-907-11	ELECT	10μF	20%	50V	
C526	1-163-133-00	CERAMIC CHIP	470pF	5%	50V	
C527	1-126-968-11	ELECT	100μF	20%	35V	
C528	1-124-902-00	ELECT	0.47μF	20%	50V	
C529	1-163-133-00	CERAMIC CHIP	470pF	5%	50V	
C531	1-124-902-00	ELECT	0.47μF	20%	50V	
C532	1-163-133-00	CERAMIC CHIP	470pF	5%	50V	
C533	1-126-968-11	ELECT	100μF	20%	35V	
C534	1-126-967-11	ELECT	47μF	20%	35V	
C535	1-126-967-11	ELECT	47μF	20%	35V	
C537	1-124-120-11	ELECT	220μF	20%	16V	
C538	1-130-495-00	MYLAR	0.1μF	5%	50V	
C539	1-130-495-00	MYLAR	0.1μF	5%	50V	
C540	1-101-004-00	CERAMIC	0.01μF	50V		
C541	1-124-907-11	ELECT	10μF	20%	50V	
C542	1-126-968-11	ELECT	100μF	20%	35V	
C543	1-101-004-00	CERAMIC	0.01μF	50V		
C544	1-124-618-11	ELECT	2200μF	20%	35V	
C545	1-124-907-11	ELECT	10μF	20%	50V	
C546	1-124-907-11	ELECT	10μF	20%	50V	
C547	1-124-618-11	ELECT	2200μF	20%	35V	
C548	1-124-907-11	ELECT	10μF	20%	50V	
		<CONNECTOR>				
CN211	*1-766-304-11	PIN, PC CONNECTOR 64P				

KA **KB**

REF. NO.	PART NO.	DESCRIPTION			REMARK
CN212	*1-564-505-11	PLUG, CONNECTOR 2P			
CN213	1-564-505-11	PLUG, CONNECTOR 2P			
		<DIODE>			
D501	8-719-948-45	DIODE ERA22-08			
D503	8-719-106-80	DIODE RD13M-B2			
D504	8-719-948-45	DIODE ERA22-08			
D506	8-719-106-80	DIODE RD13M-B2			
D507	8-719-801-78	DIODE 1SS184			
D508	8-719-948-45	DIODE ERA22-08			
D509	8-719-105-28	DIODE RD2.4M-B			
		<IC>			
IC501	8-759-231-58	IC TA79812S			
IC502	8-749-920-19	IC STK4122MK2			
IC503	8-759-145-27	IC µPC1406HA			
		<COIL>			
L501	1-459-155-00	COIL (WITH CORE) 45µH			
		<TRANSISTOR>			
Q501	8-729-901-01	TRANSISTOR DTC144EK			
Q502	8-729-901-01	TRANSISTOR DTC144EK			
Q503	8-729-216-22	TRANSISTOR 2SA1162-G			
Q504	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q505	8-729-140-96	TRANSISTOR 2SD774-34			
Q508	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q509	8-729-216-22	TRANSISTOR 2SA1162-G			
Q510	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q511	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q512	8-729-901-01	TRANSISTOR DTC144EK			
Q513	8-729-901-01	TRANSISTOR DTC144EK			
Q515	8-729-216-22	TRANSISTOR 2SA1162-G			
Q516	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q517	8-729-216-22	TRANSISTOR 2SA1162-G			
Q518	8-729-901-01	TRANSISTOR DTC144EK			
		<RESISTOR>			
R501	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R502	1-216-025-91	METAL GLAZE	100	5%	1/10W
R503	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R504	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R505	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R506	1-216-025-91	METAL GLAZE	100	5%	1/10W
R507	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R508	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W
R509	1-216-025-91	METAL GLAZE	100	5%	1/10W
R510	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R511	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R512	1-216-295-91	CONDUCTOR, CHIP			
R515	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R516	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R520	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R521	1-216-025-91	METAL GLAZE	100	5%	1/10W
R522	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R523	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W
R524	1-216-025-91	METAL GLAZE	100	5%	1/10W
R525	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W
R526	1-216-025-91	METAL GLAZE	100	5%	1/10W
R527	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R528	1-216-065-00	METAL GLAZE	4.7K	5%	1/10W
R530	1-216-053-00	METAL GLAZE	1.5K	5%	1/10W
R531	1-216-025-91	METAL GLAZE	100	5%	1/10W
R532	1-216-073-00	METAL GLAZE	10K	5%	1/10W

REF. NO.	PART NO.	DESCRIPTION			REMARK
R533	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R534	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R535	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R536	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R537	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R538	1-215-863-11	METAL OXIDE	100	5%	1W F
R539	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R540	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R541	1-216-043-91	METAL GLAZE	560	5%	1/10W
R542	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R543	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R544	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R545	1-216-043-91	METAL GLAZE	560	5%	1/10W
R546	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R547	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R548	1-215-863-11	METAL OXIDE	100	5%	1W F
R549	1-216-057-00	METAL GLAZE	2.2K	5%	1/10W
R550	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R551	1-216-101-00	METAL GLAZE	150K	5%	1/10W
R552	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R553	1-249-455-11	CARBON	4.7	5%	1/4W F
R554	1-249-455-11	CARBON	4.7	5%	1/4W F
R555	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R556	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R557	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R558	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R559	1-216-083-00	METAL GLAZE	27K	5%	1/10W
R560	1-216-105-91	METAL GLAZE	220K	5%	1/10W
R561	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R562	1-216-075-00	METAL GLAZE	12K	5%	1/10W
R563	1-216-041-00	METAL GLAZE	470	5%	1/10W
R564	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R565	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R566	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R567	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R568	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R569	1-216-049-91	METAL GLAZE	1K	5%	1/10W
		<VARIABLE RESISTOR>			
RV1	1-241-761-11	RES, ADJ, CERMET 1K			
RV2	1-241-761-11	RES, ADJ, CERMET 1K			

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*A-1385-159-A KB BOARD, COMPLETE
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		<CAPACITOR>			
C501	1-101-004-00	CERAMIC	0.01µF	50V	
C502	1-124-261-00	ELECT	10µF	20%	50V
C504	1-101-004-00	CERAMIC	0.01µF	50V	
C505	1-101-004-00	CERAMIC	0.01µF	50V	
C506	1-101-004-00	CERAMIC	0.01µF	50V	
		<CONNECTOR>			
CN214	*1-564-525-11	PLUG, CONNECTOR 10P			
CN215	*1-564-524-11	PLUG, CONNECTOR 9P			
		<IC>			
IC501	8-759-044-95	IC MC14495P1			
IC502	8-759-233-33	IC TC74HC541AP			
IC503	8-719-962-02	DIODE GL-6P202			
IC504	8-759-044-95	IC MC14495P1			
		<JACK>			
J501	1-563-935-11	JACK, STEREO HEADPHONE			

The componants identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

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Ne les remplacer que par une piece portant le numero specifie.

KB **NA** **NB** **CBR**

REF. NO.	PART NO.	DESCRIPTION			REMARK
J502	1-563-935-11	JACK, STEREO HEADPHONE			
		<COIL>			
L501	1-412-533-21	INDUCTOR 47μH			
		<TRANSISTOR>			
Q501	8-729-119-78	TRANSISTOR 2SC2785-HFE			
Q502	8-729-119-78	TRANSISTOR 2SC2785-HFE			
Q503	8-729-119-78	TRANSISTOR 2SC2785-HFE			
Q504	8-729-119-78	TRANSISTOR 2SC2785-HFE			
		<RESISTOR>			
R501	1-249-425-11	CARBON	4.7K	5%	1/4W
R502	1-249-425-11	CARBON	4.7K	5%	1/4W
R503	1-249-425-11	CARBON	4.7K	5%	1/4W
R504	1-249-441-11	CARBON	100K	5%	1/4W
R505	1-249-441-11	CARBON	100K	5%	1/4W
		<SWITCH>			
S501	1-570-145-11	SWITCH, SLIDE			
S502	1-570-145-11	SWITCH, SLIDE			
S503	1-554-481-00	SWITCH, SLIDE			

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* A-1390-396-A NA BOARD, COMPLETE
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REF. NO.	PART NO.	DESCRIPTION			REMARK
	* 4-337-475-00	HOLDER (D), LED			
		<CAPACITOR>			
C505	1-124-589-11	ELECT	47μF	20%	16V
		<CONNECTOR>			
CN503	* 1-564-519-11	PLUG, CONNECTOR 4P			
		<DIODE>			
D501	8-719-812-31	DIODE TLR123			
D502	8-719-920-05	DIODE SLP281C-50			
		<IC>			
IC501	8-741-810-09	IC SBX1610-09			
		<TRANSISTOR>			
Q501	8-729-119-78	TRANSISTOR 2SC2785-HFE			
		<RESISTOR>			
R505	1-247-815-91	CARBON	220	5%	1/4W
R506	1-247-863-91	CARBON	22K	5%	1/4W
R507	1-247-807-31	CARBON	100	5%	1/4W
R508	1-247-807-31	CARBON	100	5%	1/4W
R509	1-249-429-11	CARBON	10K	5%	1/4W

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* A-1390-397-A NB BOARD, COMPLETE
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REF. NO.	PART NO.	DESCRIPTION			REMARK
		<CONNECTOR>			
CN501	* 1-564-521-11	PLUG, CONNECTOR 6P			
CN502	* 1-564-519-11	PLUG, CONNECTOR 4P			
		<JACK>			
J501	1-563-935-11	JACK, STEREO HEADPHONE			
		<TRANSISTOR>			
Q502	8-729-900-89	TRANSISTOR DTC144ES			
		<RESISTOR>			
R501	1-249-421-11	CARBON	2.2K	5%	1/4W
R502	1-247-807-31	CARBON	100	5%	1/4W
R504	1-249-425-11	CARBON	4.7K	5%	1/4W
		<SWITCH>			
S504	1-570-145-11	SWITCH, SLIDE			

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* A-1390-423-A CBR BOARD, COMPLETE
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REF. NO.	PART NO.	DESCRIPTION			REMARK
	⚠ 1-526-812-12	SOCKET, PICTURE TUBE			
	1-575-098-11	LEAD ASSY, SIELD HIGH VOLTAGE			
	* 7-322-065-72	RUBBER, RTV (SE-9168) (130G)			
		<CAPACITOR>			
C301	1-162-114-00	CERAMIC	0.0047μF	2KV	
		<CONNECTOR>			
CN251	* 1-564-507-11	PLUG, CONNECTOR 4P			
CN252	1-508-784-00	PIN, CONNECTOR (5mm PITCH) 1P			
CN253	* 1-564-507-11	PLUG, CONNECTOR 4P			
CN254	* 1-506-371-00	PIN, CONNECTOR 2P			
CN255	1-508-784-00	PIN, CONNECTOR (5mm PITCH) 1P			
CN256	* 1-564-507-11	PLUG, CONNECTOR 4P			
		<COIL>			
L303	1-408-401-00	INDUCTOR 2.2μH			
		<NEON LAMP>			
NL301	1-519-423-11	LAMP, NEON			
NL302	1-519-423-11	LAMP, NEON			
NL303	1-519-368-21	LAMP, NEON			
NL304	1-519-368-21	LAMP, NEON			
NL305	1-519-423-11	LAMP, NEON			
		<RESISTOR>			
R301	1-202-818-00	SOLID	1K	20%	1/2W
R302	1-202-818-00	SOLID	1K	20%	1/2W
R303	1-202-823-11	SOLID	2.7K	20%	1/2W
R306	1-202-838-00	SOLID	100K	20%	1/2W
R307	1-202-535-00	SOLID	27	20%	1/2W
R308	1-202-525-00	SOLID	10	20%	1/2W
R309	1-202-832-00	SOLID	15K	20%	1/2W

CBR **CBG** **CBB** **Y**

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The componants identified by shading and mark ⚠ are critical for safety. Replace only with part number specified.

REF. NO.	PART NO.	DESCRIPTION	REMARK
		<SPARK GAP>	
SG301	1-519-063-99	DISCHARGING GAP	
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	* A-1390-424-A	CBG BOARD, COMPLETE ************************	
	⚠ 1-526-812-12	SOCKET, PICTURE TUBE	
	1-575-097-11	LEAD ASSY, SIELD HIGH VOLTAGE	
	* 7-322-065-72	RUBBER, RTV (SE-9168) (130G)	
		<CAPACITOR>	
C401	1-162-114-00	CERAMIC 0.0047µF 2KV	
		<CONNECTOR>	
CN261	* 1-564-507-11	PLUG, CONNECTOR 4P	
CN262	1-508-784-00	PIN, CONNECTOR (5mm PITCH) 1P	
CN263	* 1-564-507-11	PLUG, CONNECTOR 4P	
CN264	* 1-506-371-00	PIN, CONNECTOR 2P	
CN265	1-508-784-00	PIN, CONNECTOR (5mm PITCH) 1P	
CN266	* 1-564-507-11	PLUG, CONNECTOR 4P	
		<COIL>	
L403	1-408-401-00	INDUCTOR 2.2µH	
		<NEON LAMP>	
NL401	1-519-423-11	LAMP, NEON	
NL402	1-519-423-11	LAMP, NEON	
NL403	1-519-368-21	LAMP, NEON	
NL404	1-519-368-21	LAMP, NEON	
NL405	1-519-423-11	LAMP, NEON	
		<RESISTOR>	
R401	1-202-818-00	SOLID 1K 20% 1/2W	
R402	1-202-818-00	SOLID 1K 20% 1/2W	
R403	1-202-823-11	SOLID 2.7K 20% 1/2W	
R406	1-202-838-00	SOLID 100K 20% 1/2W	
R407	1-202-535-00	SOLID 27 20% 1/2W	
R408	1-202-525-00	SOLID 10 20% 1/2W	
R409	1-202-832-00	SOLID 15K 20% 1/2W	
		<SPARK GAP>	
SG401	1-519-063-99	DISCHARGING GAP	
************	************	************************************	**********
	* A-1390-425-A	CBB BOARD, COMPLETE ************************	
	⚠ 1-526-812-12	SOCKET, PICTURE TUBE	
	1-575-096-11	LEAD ASSY, SIELD HIGH VOLTAGE	
	* 7-322-065-72	RUBBER, RTV (SE-9168) (130G)	
		<CAPACITOR>	
C501	1-162-114-00	CERAMIC 0.0047µF 2KV	
		<CONNECTOR>	
CN271	* 1-564-507-11	PLUG, CONNECTOR 4P	
CN272	1-508-784-00	PIN, CONNECTOR (5mm PITCH) 1P	
CN273	* 1-564-507-11	PLUG, CONNECTOR 4P	

REF. NO.	PART NO.	DESCRIPTION	REMARK
CN274	* 1-506-371-00	PIN, CONNECTOR 2P	
CN275	1-508-784-00	PIN, CONNECTOR (5mm PITCH) 1P	
CN276	* 1-564-507-11	PLUG, CONNECTOR 4P	
		<COIL>	
L503	1-408-401-00	INDUCTOR 2.2µH	
		<NEON LAMP>	
NL501	1-519-423-11	LAMP, NEON	
NL502	1-519-423-11	LAMP, NEON	
NL503	1-519-368-21	LAMP, NEON	
NL504	1-519-368-21	LAMP, NEON	
NL505	1-519-423-11	LAMP, NEON	
		<RESISTOR>	
R501	1-202-818-00	SOLID 1K 20% 1/2W	
R502	1-202-818-00	SOLID 1K 20% 1/2W	
R503	1-202-823-11	SOLID 2.7K 20% 1/2W	
R506	1-202-838-00	SOLID 100K 20% 1/2W	
R507	1-202-535-00	SOLID 27 20% 1/2W	
R508	1-202-525-00	SOLID 10 20% 1/2W	
R509	1-202-832-00	SOLID 15K 20% 1/2W	
		<SPARK GAP>	
SG501	1-519-063-99	DISCHARGING GAP	
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	A-1394-770-A	Y BOARD, COMPLETE *********************	
	* 1-526-654-21	SOCKET, IC (DP) 16P	
	* 1-526-659-00	SOCKET, IC (DP) 28P	
	* 1-563-949-11	SOCKET, SIL 8P	
		<CAPACITOR>	
C2	1-126-963-11	ELECT 4.7µF 20% 50V	
C3	1-164-232-11	CERAMIC CHIP 0.01µF 10% 50V	
C4	1-164-232-11	CERAMIC CHIP 0.01µF 10% 50V	
C5	1-164-232-11	CERAMIC CHIP 0.01µF 10% 50V	
C6	1-164-232-11	CERAMIC CHIP 0.01µF 10% 50V	
C7	1-164-232-11	CERAMIC CHIP 0.01µF 10% 50V	
C8	1-164-232-11	CERAMIC CHIP 0.01µF 10% 50V	
C9	1-164-232-11	CERAMIC CHIP 0.01µF 10% 50V	
C10	1-164-232-11	CERAMIC CHIP 0.01µF 10% 50V	
C11	1-163-251-11	CERAMIC CHIP 100pF 5% 50V	
C12	1-163-239-11	CERAMIC CHIP 33pF 5% 50V	
C13	1-163-239-11	CERAMIC CHIP 33pF 5% 50V	
C14	1-163-036-00	CERAMIC CHIP 0.068µF 50V	
C15	1-164-344-11	CERAMIC CHIP 0.068µF 10% 25V	
C16	1-164-232-11	CERAMIC CHIP 0.01µF 10% 50V	
C17	1-164-232-11	CERAMIC CHIP 0.01µF 10% 50V	
C18	1-164-232-11	CERAMIC CHIP 0.01µF 10% 50V	
C19	1-164-232-11	CERAMIC CHIP 0.01µF 10% 50V	
C20	1-164-232-11	CERAMIC CHIP 0.01µF 10% 50V	
C21	1-163-231-11	CERAMIC CHIP 15pF 5% 50V	
C22	1-163-099-00	CERAMIC CHIP 18pF 5% 50V	
C23	1-164-232-11	CERAMIC CHIP 0.01µF 10% 50V	
C24	1-164-232-11	CERAMIC CHIP 0.01µF 10% 50V	
C25	1-164-232-11	CERAMIC CHIP 0.01µF 10% 50V	
C26	1-164-232-11	CERAMIC CHIP 0.01µF 10% 50V	
C27	1-164-232-11	CERAMIC CHIP 0.01µF 10% 50V	
C28	1-164-232-11	CERAMIC CHIP 0.01µF 10% 50V	
C29	1-164-232-11	CERAMIC CHIP 0.01µF 10% 50V	

The componants identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie.

REF. NO.	PART NO.	DESCRIPTION			REMARK
C30	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C31	1-163-231-11	CERAMIC CHIP	15pF	5%	50V
C32	1-163-231-11	CERAMIC CHIP	15pF	5%	50V
C33	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C34	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C35	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C36	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C37	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C38	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C39	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C40	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C41	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C42	1-104-664-11	ELECT	47µF	20%	16V
C43	1-163-251-11	CERAMIC CHIP	100pF	5%	50V
C45	1-163-089-00	CERAMIC CHIP	6pF	0.5pF	50V
C46	1-163-235-11	CERAMIC CHIP	22pF	5%	50V
C47	1-124-119-00	ELECT	330µF	20%	16V
C48	1-104-664-11	ELECT	47µF	20%	16V
C49	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C50	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C51	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C52	1-126-941-11	ELECT	470µF	20%	16V
C53	1-104-664-11	ELECT	47µF	20%	16V
C54	1-104-665-11	ELECT	100µF	20%	16V
C55	1-104-665-11	ELECT	100µF	20%	16V
C56	1-104-665-11	ELECT	100µF	20%	16V
C57	1-163-227-11	CERAMIC CHIP	10pF	0.5pF	50V
C58	1-163-227-11	CERAMIC CHIP	10pF	0.5pF	50V
C59	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C60	1-163-251-11	CERAMIC CHIP	100pF	5%	50V
C61	1-163-251-11	CERAMIC CHIP	100pF	5%	50V
C62	1-163-251-11	CERAMIC CHIP	100pF	5%	50V
C63	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C64	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C65	1-163-036-00	CERAMIC CHIP	0.068µF	50V	
C67	1-124-119-00	ELECT	330µF	20%	16V
C68	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C69	1-163-121-00	CERAMIC CHIP	150pF	5%	50V
C70	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C71	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C72	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C73	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C74	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C75	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C76	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C77	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C78	1-124-907-11	ELECT	10µF	20%	50V
C79	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C80	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C81	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C82	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C83	1-124-907-11	ELECT	10µF	20%	50V
C84	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C85	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C86	1-163-133-00	CERAMIC CHIP	470pF	5%	50V
C87	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C88	1-164-232-11	CERAMIC CHIP	0.01µF	10%	50V
C90	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C91	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
C92	1-164-004-11	CERAMIC CHIP	0.1µF	10%	25V
		<DIODE>			
D2	8-719-971-20	DIODE ERC38-06			
D4	8-719-820-12	DIODE TLR224			
D5	8-719-104-34	DIODE 1S2836			
D7	8-719-801-78	DIODE 1SS184			
D8	8-719-801-78	DIODE 1SS184			
D9	8-719-104-34	DIODE 1S2836			

REF. NO.	PART NO.	DESCRIPTION			REMARK
D10	8-719-104-34	DIODE 1S2836			
		<IC>			
IC1	8-759-320-49	IC HD64180R1P8			
IC3	8-759-336-84	IC LC3564SM-10			
IC4	8-759-196-99	IC UPD28C64ACZ-15			
IC5	8-759-925-80	IC SN74HC14ANS			
IC6	8-759-239-55	IC TC74HC123AF			
IC7	8-759-008-21	IC MC74HC541F			
IC8	8-759-008-21	IC MC74HC541F			
IC9	8-759-995-97	IC MB8855-1314N			
IC10	8-759-984-56	IC MB670840pF			
IC11	8-759-984-59	IC MB654842UpF			
IC12	8-759-984-58	IC MB671469pF			
IC13	8-759-181-02	IC MB605E66			
IC14	8-752-322-06	IC CXK5814P-35			
IC15	8-752-333-84	IC CXK3864-040M			
IC16	8-752-333-85	IC CXK3864-041M			
IC17	8-752-333-86	IC CXK3864-042M			
IC18	8-759-301-24	IC HD10124			
IC19	8-759-301-24	IC HD10124			
IC20	8-752-306-51	IC CX23065A			
IC21	8-759-911-24	IC SN74S124N			
IC22	8-759-100-93	IC µPC393G2			
IC23	8-759-031-50	IC MC74F00M			
IC24	8-759-008-57	IC MC34051P			
IC25	8-759-114-06	IC µPC814G2-1			
IC26	8-759-032-32	IC MC74HC132AF			
IC27	8-759-240-41	IC TC74HC107AP			
IC28	8-759-032-01	IC MC74HC00AF			
IC29	8-759-239-55	IC TC74HC123AF			
IC30	8-759-032-29	IC MC74HC126AF			
IC31	8-759-925-80	IC SN74HC14ANS			
IC32	8-759-008-21	IC MC74HC541F			
IC33	8-759-979-65	IC RH5VA43AA-T1			
IC34	8-759-032-41	IC MC74HC157AF			
IC35	8-759-144-82	IC µPC2405HF			
		<COIL>			
L1	1-459-155-00	COIL (WITH CORE) 45µH			
L2	1-459-155-00	COIL (WITH CORE) 45µH			
L3	1-459-155-00	COIL (WITH CORE) 45µH			
L4	1-459-155-00	COIL (WITH CORE) 45µH			
		<IC LINK>			
PS1	⚠ 1-532-679-91	LINK, IC 0.6A/150V			
PS2	⚠ 1-532-679-91	LINK, IC 0.6A/150V			
		<TRANSISTOR>			
Q3	8-729-216-22	TRANSISTOR 2SA1162-G			
Q4	8-729-216-22	TRANSISTOR 2SA1162-G			
Q5	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q6	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q7	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q8	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q9	8-729-216-22	TRANSISTOR 2SA1162-G			
		<RESISTOR>			
R1	1-216-001-00	METAL GLAZE	10	5%	1/10W
R2	1-216-001-00	METAL GLAZE	10	5%	1/10W
R3	1-216-001-00	METAL GLAZE	10	5%	1/10W
R4	1-216-001-00	METAL GLAZE	10	5%	1/10W
R5	1-216-001-00	METAL GLAZE	10	5%	1/10W
R6	1-216-001-00	METAL GLAZE	10	5%	1/10W
R7	1-216-001-00	METAL GLAZE	10	5%	1/10W

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REF. NO.	PART NO.	DESCRIPTION			REMARK
R8	1-216-001-00	METAL GLAZE	10	5%	1/10W
R9	1-216-001-00	METAL GLAZE	10	5%	1/10W
R10	1-216-001-00	METAL GLAZE	10	5%	1/10W
R11	1-216-001-00	METAL GLAZE	10	5%	1/10W
R12	1-216-001-00	METAL GLAZE	10	5%	1/10W
R13	1-216-025-91	METAL GLAZE	100	5%	1/10W
R14	1-216-025-91	METAL GLAZE	100	5%	1/10W
R15	1-216-025-91	METAL GLAZE	100	5%	1/10W
R16	1-216-025-91	METAL GLAZE	100	5%	1/10W
R17	1-216-037-00	METAL GLAZE	330	5%	1/10W
R18	1-216-025-91	METAL GLAZE	100	5%	1/10W
R19	1-216-025-91	METAL GLAZE	100	5%	1/10W
R20	1-216-037-00	METAL GLAZE	330	5%	1/10W
R21	1-216-025-91	METAL GLAZE	100	5%	1/10W
R22	1-216-025-91	METAL GLAZE	100	5%	1/10W
R23	1-216-025-91	METAL GLAZE	100	5%	1/10W
R24	1-216-037-00	METAL GLAZE	330	5%	1/10W
R25	1-216-037-00	METAL GLAZE	330	5%	1/10W
R26	1-216-037-00	METAL GLAZE	330	5%	1/10W
R27	1-216-025-91	METAL GLAZE	100	5%	1/10W
R28	1-216-025-91	METAL GLAZE	100	5%	1/10W
R29	1-216-025-91	METAL GLAZE	100	5%	1/10W
R30	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R31	1-216-025-91	METAL GLAZE	100	5%	1/10W
R32	1-216-025-91	METAL GLAZE	100	5%	1/10W
R33	1-216-037-00	METAL GLAZE	330	5%	1/10W
R34	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R36	1-216-037-00	METAL GLAZE	330	5%	1/10W
R37	1-216-025-91	METAL GLAZE	100	5%	1/10W
R38	1-216-025-91	METAL GLAZE	100	5%	1/10W
R39	1-216-037-00	METAL GLAZE	330	5%	1/10W
R40	1-216-037-00	METAL GLAZE	330	5%	1/10W
R41	1-216-037-00	METAL GLAZE	330	5%	1/10W
R42	1-216-037-00	METAL GLAZE	330	5%	1/10W
R43	1-216-037-00	METAL GLAZE	330	5%	1/10W
R44	1-216-025-91	METAL GLAZE	100	5%	1/10W
R45	1-216-037-00	METAL GLAZE	330	5%	1/10W
R46	1-216-037-00	METAL GLAZE	330	5%	1/10W
R47	1-216-025-91	METAL GLAZE	100	5%	1/10W
R48	1-216-037-00	METAL GLAZE	330	5%	1/10W
R49	1-216-037-00	METAL GLAZE	330	5%	1/10W
R50	1-216-037-00	METAL GLAZE	330	5%	1/10W
R51	1-216-037-00	METAL GLAZE	330	5%	1/10W
R52	1-216-037-00	METAL GLAZE	330	5%	1/10W
R53	1-216-037-00	METAL GLAZE	330	5%	1/10W
R54	1-216-037-00	METAL GLAZE	330	5%	1/10W
R55	1-216-037-00	METAL GLAZE	330	5%	1/10W
R56	1-216-037-00	METAL GLAZE	330	5%	1/10W
R57	1-216-037-00	METAL GLAZE	330	5%	1/10W
R58	1-216-037-00	METAL GLAZE	330	5%	1/10W
R59	1-216-037-00	METAL GLAZE	330	5%	1/10W
R62	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R63	1-216-091-00	METAL GLAZE	56K	5%	1/10W
R64	1-216-121-91	METAL GLAZE	1M	5%	1/10W
R65	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R66	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R67	1-216-045-00	METAL GLAZE	680	5%	1/10W
R68	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R69	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R70	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R71	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R72	1-216-025-91	METAL GLAZE	100	5%	1/10W
R73	1-216-025-91	METAL GLAZE	100	5%	1/10W
R74	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R75	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R76	1-216-045-00	METAL GLAZE	680	5%	1/10W
R77	1-216-045-00	METAL GLAZE	680	5%	1/10W
R78	1-216-045-00	METAL GLAZE	680	5%	1/10W
R79	1-216-045-00	METAL GLAZE	680	5%	1/10W
R80	1-216-025-91	METAL GLAZE	100	5%	1/10W
R81	1-216-025-91	METAL GLAZE	100	5%	1/10W
R82	1-216-045-00	METAL GLAZE	680	5%	1/10W
R83	1-216-045-00	METAL GLAZE	680	5%	1/10W
R84	1-216-025-91	METAL GLAZE	100	5%	1/10W
R85	1-216-045-00	METAL GLAZE	680	5%	1/10W
R86	1-216-045-00	METAL GLAZE	680	5%	1/10W
R87	1-216-045-00	METAL GLAZE	680	5%	1/10W
R88	1-216-045-00	METAL GLAZE	680	5%	1/10W
R89	1-216-025-91	METAL GLAZE	100	5%	1/10W
R90	1-216-025-91	METAL GLAZE	100	5%	1/10W
R91	1-216-045-00	METAL GLAZE	680	5%	1/10W
R92	1-216-025-91	METAL GLAZE	100	5%	1/10W
R93	1-216-045-00	METAL GLAZE	680	5%	1/10W
R100	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R101	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R102	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R103	1-216-085-00	METAL GLAZE	33K	5%	1/10W
R104	1-216-085-00	METAL GLAZE	33K	5%	1/10W
R105	1-216-083-00	METAL GLAZE	27K	5%	1/10W
R106	1-216-081-00	METAL GLAZE	22K	5%	1/10W
R107	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R108	1-216-089-91	METAL GLAZE	47K	5%	1/10W
R109	1-216-121-91	METAL GLAZE	1M	5%	1/10W
R110	1-216-097-91	METAL GLAZE	100K	5%	1/10W
R111	1-216-121-91	METAL GLAZE	1M	5%	1/10W
R112	1-216-121-91	METAL GLAZE	1M	5%	1/10W
R113	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R114	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R115	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R116	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R117	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R118	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R119	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R120	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R121	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R122	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R123	1-216-073-00	METAL GLAZE	10K	5%	1/10W
R124	1-216-045-00	METAL GLAZE	680	5%	1/10W
R125	1-216-025-91	METAL GLAZE	100	5%	1/10W
R126	1-216-025-91	METAL GLAZE	100	5%	1/10W
R127	1-216-025-91	METAL GLAZE	100	5%	1/10W
R128	1-216-025-91	METAL GLAZE	100	5%	1/10W
R129	1-216-025-91	METAL GLAZE	100	5%	1/10W
R130	1-216-025-91	METAL GLAZE	100	5%	1/10W
R131	1-216-025-91	METAL GLAZE	100	5%	1/10W
R132	1-216-025-91	METAL GLAZE	100	5%	1/10W
R133	1-216-025-91	METAL GLAZE	100	5%	1/10W
R134	1-216-025-91	METAL GLAZE	100	5%	1/10W
R135	1-216-025-91	METAL GLAZE	100	5%	1/10W
R136	1-216-025-91	METAL GLAZE	100	5%	1/10W
R137	1-216-025-91	METAL GLAZE	100	5%	1/10W
R138	1-216-025-91	METAL GLAZE	100	5%	1/10W
R139	1-216-025-91	METAL GLAZE	100	5%	1/10W
R140	1-216-025-91	METAL GLAZE	100	5%	1/10W
R141	1-216-025-91	METAL GLAZE	100	5%	1/10W
R142	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R143	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R146	1-208-806-11	METAL CHIP	10K	0.50%	1/10W
R147	1-216-025-91	METAL GLAZE	100	5%	1/10W
R148	1-216-049-91	METAL GLAZE	1K	5%	1/10W
R149	1-216-025-91	METAL GLAZE	100	5%	1/10W
R150	1-216-105-91	METAL GLAZE	220K	5%	1/10W
R151	1-216-113-00	METAL GLAZE	470K	5%	1/10W
R152	1-216-025-91	METAL GLAZE	100	5%	1/10W
R153	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R154	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W
R155	1-216-061-00	METAL GLAZE	3.3K	5%	1/10W

The componants identified by shading and mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifies par une trame et une marque ⚠ sont critiques pour la securite.
Ne les remplacer que par une piece portant le numero specifie.

REF. NO.	PART NO.	DESCRIPTION		REMARK
R156	1-216-073-00	METAL GLAZE 10K	5%	1/10W
R157	1-216-073-00	METAL GLAZE 10K	5%	1/10W
R158	1-216-073-00	METAL GLAZE 10K	5%	1/10W
R159	1-216-025-91	METAL GLAZE 100	5%	1/10W
R160	1-216-049-91	METAL GLAZE 1K	5%	1/10W
R162	1-216-037-00	METAL GLAZE 330	5%	1/10W
R163	1-216-037-00	METAL GLAZE 330	5%	1/10W
R164	1-216-073-00	METAL GLAZE 10K	5%	1/10W
R165	1-216-073-00	METAL GLAZE 10K	5%	1/10W
R166	1-216-025-91	METAL GLAZE 100	5%	1/10W
R167	1-216-037-00	METAL GLAZE 330	5%	1/10W
R168	1-216-067-00	METAL GLAZE 5.6K	5%	1/10W
R169	1-216-057-00	METAL GLAZE 2.2K	5%	1/10W
R170	1-216-057-00	METAL GLAZE 2.2K	5%	1/10W
R171	1-216-055-00	METAL GLAZE 1.8K	5%	1/10W
R172	1-216-085-00	METAL GLAZE 33K	5%	1/10W
R173	1-216-041-00	METAL GLAZE 470	5%	1/10W
R174	1-216-079-00	METAL GLAZE 18K	5%	1/10W
R175	1-216-049-91	METAL GLAZE 1K	5%	1/10W
R176	1-216-065-00	METAL GLAZE 4.7K	5%	1/10W
R177	1-216-129-00	METAL GLAZE 2.2M	5%	1/10W
R178	1-216-045-00	METAL GLAZE 680	5%	1/10W
R179	1-216-073-00	METAL GLAZE 10K	5%	1/10W
R181	1-216-089-91	METAL GLAZE 47K	5%	1/10W
R182	1-216-033-00	METAL GLAZE 220	5%	1/10W
R183	1-216-033-00	METAL GLAZE 220	5%	1/10W
R184	1-216-063-91	METAL GLAZE 3.9K	5%	1/10W
R185	1-216-295-91	CONDUCTOR, CHIP		
R187	1-216-295-91	CONDUCTOR, CHIP		
R189	1-216-055-00	METAL GLAZE 1.8K	5%	1/10W
R190	1-216-295-91	CONDUCTOR, CHIP		

<SWITCH>

SW1	1-570-598-11	SWITCH, DIP
SW2	1-570-204-21	SWITCH, KEY BOARD

<CRYSTAL>

X1	1-578-687-11	VIBRATOR, CRYSTAL
X2	1-577-116-21	VIBRATOR, CRYSTAL
X3	1-567-192-11	OSCILLATOR, CERAMIC
X4	1-577-353-11	VIBRATOR, CERAMIC

<CONNECTOR>

Y-1	* 1-568-984-11	CONNECTOR, MALE 96P

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MISCELLANEOUS
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PART NO.	DESCRIPTION
⚠ 1-413-934-12	REGULATOR, SWITCHING (SOPS-1047) (RVP-4015Q)
⚠ 1-413-935-12	REGULATOR, SWITCHING (SOPS-1074) (RVP-4015QM)
⚠ 1-451-355-12	DEFLECTION YOKE (Y636PJ)
⚠ 1-452-443-13	NECK ASSY, PICTURE TUBE (NA367)
⚠ 1-452-730-12	NECK ASSEMBLY (NA-3613)
⚠ 1-453-108-11	DC BLOCK, HIGH-VOLTAGE
⚠ 1-453-108-31	DC BLOCK, HIGH-VOLTAGE
1-467-711-21	REMOTE COMMANDER (RM-PJ4010) (SET SIDE)
1-544-353-11	SPEAKER
* 1-556-945-21	CABLE, P-P
⚠ 1-559-865-31	LEAD ASSY, HIGH-VOLTAGE
1-575-092-11	CONNECTOR ASSY, MULTI 14P
1-698-059-11	FAN, DC
1-698-369-11	FAN, DC

REF. NO.	PART NO.	DESCRIPTION	REMARK
V901	⚠ 8-736-063-05	PICTURE TUBE 07MSU (SD-208) (G)	
V902	⚠ 8-736-064-05	PICTURE TUBE 07MSU (SD-208) (B)	
V903	⚠ 8-736-065-05	PICTURE TUBE 07MSU (SD-208) (R)	

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ACCESSORIES AND PACKING MATERIALS
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PART NO.	DESCRIPTION
⚠ 1-559-303-21	CODE, POWER (10.0A/125V) (RVP-4015Q)
⚠ 1-575-175-11	CODE SET, POWER (10.0A/250V) (RVP-4015QM)
1-765-471-21	CORD, CONNECTION
* 3-674-673-01	STOPPER (A)
3-856-228-11	INSTALLATION MANUAL (ENGLISH,FRENCH)
3-856-228-21	INSTALLATION MANUAL (SPANISH)
3-856-228-31	INSTALLATION MANUAL (GERMAN) (RVP-4015QM)
3-856-228-41	INSTALLATION MANUAL (ITALIAN) (RVP-4015QM)
3-856-229-11	MANUAL, INSTRUCTION (ENGLISH,FRENCH)
3-856-229-21	MANUAL, INSTRUCTION (SPANISH)
3-856-229-31	MANUAL, INSTRUCTION (GERMAN) (RVP-4015QM)
3-856-229-41	MANUAL, INSTRUCTION (ITALIAN) (RVP-4015QM)
* 4-044-461-01	TRAY
* 4-044-462-01	SHEET, PROTECTION
* 4-044-463-01	BOARD, TOP
* 4-044-464-01	BOARD, BOTTOM
* 4-044-465-01	BASE, BOTTOM
* 4-044-467-01	CUSHION (UPPER) (ASSY)
* 4-044-468-01	CUSHION (LOWER) (ASSY)
* 4-044-469-01	CUSHION, ASSIST
* 4-053-778-01	INDIVIDUAL CARTON (RVP-4015Q)
* 4-053-779-01	INDIVIDUAL CARTON (RVP-4015QM)
* 4-388-954-01	BAG, PROTECTION
* 4-396-287-01	SPACER
* 4-396-288-01	BOX, ACCESSORY

REMOTE COMMANDER
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PART NO.	DESCRIPTION
1-467-711-11	REMOTE COMMANDER (RM-PJ4010)
4-040-086-11	COVER, BATTERY (FOR RM-PJ4010)